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FIFTH AND SIXTH ANNUAL REPORTS

OF THE

PROPERTY OF
HAVEN EMERSON

BOARD OF HEALTH

OF THE

HEALTH DEPARTMENT OF THE CITY OF NEW YORK.

May 1, 1874, to December 31, 1875.

NEW YORK:
MARTIN B. BROWN, PRINTER AND STATIONER,
201, 203 AND 205 WILLIAM STREET.

1876.

HEALTH DEPARTMENT, NO. 301 MOTT STREET,
NEW YORK, January 31, 1876.

To the Hon. WILLIAM H. WICKHAM,
Mayor of the City of New York :

SIR—I have the honor to transmit the Annual Reports of the Board of Health of the Health Department of the City of New York, for the period commencing May 1, 1874, and ending December 31, 1875, and containing the Vital Statistics of the city for the years 1874 and 1875.

Respectfully yours, etc.,

EMMONS CLARK,
Secretary.

CONTENTS.

PAGE
Names of Commissioners, ... v
Names of Officers and Employees, ... vi
Report of the Board, ... 1
" " Sanitary Superintendent, ... 76
" " Register of Records, ... 257
" " Deputy Register of Records, ... 582
" " Attorney and Counsel, ... 637
" on Croton Water, ... 641
" " the Manufacture of Cigars in Tenement-houses, . 649
" " Investigations into the Pathogeny of Diphtheria, 657
" " Pneumonia, ... 713
" " Hydrophobia in Dogs and other Animals, and the Sanitary Precautions against its Transmission to the Human Race, ... 716
Report of the Sanitary Committee on the Concentration and Regulation of the Business of Slaughtering Animals 764
Report on Smoky Chimneys, ... 789
Index, ... 793

PROPERTY OF
HAVEN EMERSON

BOARD OF HEALTH.

President :

CHARLES F. CHANDLER, Ph. D.

STEPHEN SMITH, M. D., . . . *Commissioner of Health.*
(May 1, 1874, to April 30, 1875.)

EDWARD G. JANEWAY, M. D., . *Commissioner of Health.*
(May 1, 1875, to December 31, 1875.)

S. OAKLEY VANDERPOEL, M. D., *Health Officer of the Port.*

HUGH GARDNER, . . . *President of the Board of Police.*
(May 1, 1874, to July 7, 1874.)

GEORGE W. MATSELL, . *President of the Board of Police.*
(July 8, 1874, to December 31, 1875.)

Secretary :

EMMONS CLARK.

OFFICERS AND EMPLOYEES OF THE BOARD,

DECEMBER 31, 1875.

WALTER DE F. DAY, M. D.,	*Sanitary Superintendent.*
ELISHA HARRIS, M. D.,	*Register of Records.*
WILLIAM P. PRENTICE,	*Attorney and Counsel.*
GEORGE S. HASTINGS,	*Chief Clerk.*
STEVENSON TOWLE,	*Consulting Sanitary Engineer.*
DANIEL DRAPER, M. D.,	*Consulting Meteorologist.*
EDWARD CURTIS, M. D.,	*Consulting Microscopist.*
A. F. LIAUTARD, V. S.,	*Consulting Veterinary Surgeon.*
CARL PFEIFFER,	*Consulting Sanitary Architect.*

SANITARY INSPECTORS.

JOSEPH D. BRYANT, M. D.
WILLIAM A. EWING, M. D.
ALLAN McL. HAMILTON, M. D.
BERNARD HUGHES, M. D.
CHARLES E. LOCKWOOD, M. D.
WILLIAM H. B. POST, M. D.
CHARLES F. ROBERTS, M. D.
CHARLES P. RUSSEL, M. D.
ROGER S. TRACY, M. D.
AUGUSTUS VIELE, M. D.

ASSISTANT SANITARY INSPECTORS.

CALEB H. ATWATER, M. D.
JOHN E. COMFORT, M. D.
ADONIRAM B. JUDSON, M. D.
STUYVESANT F. MORRIS, M. D.
THOMAS J. NEALIS.
CHARLES F. RODENSTEIN, M. D.
ELWYN WALLER, PH. D.

VACCINATING CORPS.

JAMES B. TAYLOR, M. D., *Inspector of Vaccination.*

EDWARD L. PARDEE, M. D.
FRANK LIVERMORE, M. D.
ABELARDO B. DE LUNA, M. D.
PETER B. WYCKOFF, M. D.
HORACE R. WILLIAMS, M. D.
MARTIN J. FLEMING, M. D.
WILLIAM E. H. POST, M. D.
THOMAS W. P. FLYNN, M. D.
WILLIAM J. PURCELL, M. D.
WILBUR F. LANE, M. D.
JOSEPH T. O'CONNOR, M. D.
EDWARD C. PASSMORE, M. D.
JOHN B. WHITE, M. D.

SECRETARY'S OFFICE.

EMMONS CLARK, *Secretary.*
GEORGE S. HASTINGS, *Chief Clerk.*
CASPAR GOLDERMAN, *Auditing Clerk, and Chief Clerk to Secretary.*
JAMES A. HILL, *Clerk.*
JOSEPH H. HANSON, *Clerk.*
EDWIN B. LENT, "
STATES BARTON, "
MARTIN KELLY, *Janitor.*
CHARLES KOERBER, *Messenger.*

ATTORNEY'S OFFICE.

WILLIAM P. PRENTICE, *Attorney and Counsel.*

CHARLES HOYER, *Clerk.*
WM. F. T. CHAPMAN, *Clerk.*

BUREAU OF SANITARY INSPECTION.

WALTER DE F. DAY, M. D., *Sanitary Superintendent.*
EDWARD H. JANES, M. D., *Assistant Sanitary Superintendent.*
JAMES R. GRISWOLD, *Chief Clerk to Sanitary Superintendent.*
WILLIAM B. FERNHEAD, *Clerk.*
WILLIAM A. SMALLEY, "
JONAS G. DUDLEY, "
JOHN McCAULEY, "
WM. W. POST, "
JOHN H. BAZIN, "
HERMAN ENDEMANN, PH. D., *Chief of Disinfecting Corps.*
THOMAS D. YATES, *Employee Disinfecting Corps.*
BARTHOLOMEW McGOWAN, *Employee Disinfecting Corps.*
WILLIAM REYNOLDS, *Employee Disinfecting Corps.*
MATTHEW DUNN, *Employee Disinfecting Corps.*
WILLIAM COONEY, *Employee Disinfecting Corps.*
JOHN SCHNELL, *Messenger.*

BUREAU OF VITAL STATISTICS.

ELISHA HARRIS, M. D., *Register of Records.*
JOHN T. NAGLE, M. D., *Deputy Register of Records.*
LOUIS KRAUSHAAR, *Clerk.*
JACOB A. WEIL, "
HENRY G. WHEELOCK, "
WILLIAM H. RESSEGUIE, *Clerk.*
CHARLES P. BOSWORTH, "
LOUIS T. BRENNAN, "
EDWARD J. GALLAGHER, "
THOMAS J. McNAMARA, "
WM. A. STOUTENBURGH, "
LEWIS MORRIS, "

JARVIS N. HUSTED, M.D., } *Examiners of Death Certificates.*
THOMAS E. CONE, M. D., }

RIVERSIDE HOSPITAL (SMALL-POX),

BLACKWELL'S ISLAND.

JAMES J. DELANEY, M. D., *Resident Physician.*

WILLIAM ROBERTS, *Clerk.*
JOHN SULLIVAN, *Day Watchman.*
LUDWIG PLANITZ, *Orderly.*
LAWRENCE K. SMITH, "
DANIEL SHIERS, "
FREDERICK FISCHER, "
WILLIAM TALBOT, "
JOHN WALKER, *Orderly.*
CHARLES R. CARE, "
MARY McGRAW, *Nurse.*
MARIA CRONIN, "
JOHN VICKERS, *Engineer.*
WILLIAM CHIPPS, *Undertaker.*
MARY TOOLE, *Cook.*

Eight Sisters of Charity as Nurses.

RECEPTION HOSPITAL (SMALL-POX),

FOOT OF 26TH STREET, EAST RIVER.

MARGARET J. BOWERS, *Matron.*

PHILIP E. PIETCH, *Orderly.*
MARY CODY, *Nurse.*

REPORT.

To the Honorable WILLIAM H. WICKHAM,
Mayor of the City of New York:

The Board of Health of the Health Department of the City of New York respectfully submits the following report, which contains a review of its proceedings from May 1, 1874, to December 31, 1875, and the Vital Statistics of the City for the years 1874 and 1875.

Organization of the Board.—The Board of Health, as organized under chapter 335, Laws of 1873, was composed of the following-named Commissioners May 1, 1874: Hugh Gardner, President of the Board of Police; S. Oakley Vanderpoel, M.D., Health Officer of the Port; Charles F. Chandler, Ph.D., Commissioner of Health and President of the Board; and Stephen Smith, M. D., Commissioner of Health. In July, 1874, George W. Matsell succeeded Hugh Gardner as President of the Board of Police and as a member of the Board of Health. The term of office of Dr. Stephen Smith as Commissioner of Health expired on the 30th day of April, 1875, and Edward G. Janeway, M.D., was appointed his successor. This Board cheerfully bears witness to the ability and fidelity of the members who have been relieved from their official duties during the period covered by this report. In compliance with chapter 635, Laws of 1874, the Board organized in September of that year a Corps of Vaccinators, consisting of Dr. J. B. Taylor, Inspector of Vaccination, as its chief officer, with eleven physicians as his assistants, with the rank and title of Assistant Sanitary Inspectors. No change has occurred in the organization of the Sanitary Bureau and the Bureau of Vital Statistics since the last report.

Appointments.—In the organization of the Vaccinating Corps the Board secured the services of those best qualified by education and otherwise to perform the duties required, by an examination of all applicants for appointment. Each candidate was required to answer in writing, while present at the office of the Board, a series of questions relating to the cause, diagnosis, care and treatment of contagious diseases, the use of disinfectants, and to other sanitary subjects of like character. A critical examination by the Committee on Applications of the answers to the questions proposed, enabled the Board to judge of the respective qualifications of the candidates, and to make its appointments in the interest of the public service. Few vacancies have occurred during the period covered by this report among the sanitary officers and clerks of the Department. The Board has steadily adhered to the policy of retaining in its service officers and clerks of approved ability and fidelity, and of making no changes except for good and sufficient cause. In making appointments to fill vacancies all applicants have been required to pass the usual examination as to qualifications for the vacant position.

Rules and Regulations.—The rules and regulations governing the Health Department, as adopted in 1866, and as re-adopted with the necessary amendments by the Board upon its reorganization in May, 1873, have not since been materially amended. In July, 1874, Rule No. 44, relating to the opening of burial vaults between November 1st and May 1st of each year, for the temporary deposit of the dead, was amended so as to empower the Sanitary Superintendent and the Register of Records to grant permits in special cases. In September, 1874, additional rules were adopted in respect to the examination of the public registers of births, marriages and deaths; fixing the fees for a search and transcript of the records, whenever such search is made by any officer or clerk of this Department; establishing the necessary forms for application for search and transcript, and for the collection of the fees; and finally a proper account of all moneys received from this source, and the monthly payment of the same to the City Chamberlain. In March, 1875, Rule No. 14, governing the Board in respect to the appointment, transfer or removal of officers and clerks, was amended and made more stringent, and Rule No. 86, providing for the amendment or the adoption of any rule or regulation, was so amended as to require prior notice thereof at a regular meeting, and not less than three affirmative votes.

The Sanitary Code.—The ordinances relating to the public health, which had been from time to time adopted by the proper authorities of the city, and which were collected and re-enacted, under the authority of law, by the Metropolitan Board of Health in 1866, and which received indorsement and confirmation by the acts of 1870 and 1873, reorganizing the local government of the City of New York and the action of this Board, have been duly enforced by suits for penalties and by police authority. To the Sanitary Code, as re-adopted June 2, 1873, this Board has, by virtue and in pursuance of the authority and power conferred by law, added some new provisions for the security of life and health, and has amended some sections, all of which have been duly published, as required by law. On the 5th day of May, 1874, amendments were adopted to section 65 of the Sanitary Code relating to the time and manner of conveying offal and butchers' refuse through the public streets; to section 98, relating to dust from lime, ashes, coal and other similar substances, and from certain business pursuits; and to section 112, relating to the storage or deposit of manure or garbage within the built-up portions of the city. On the 16th of June, 1874, section 74, requiring the muzzling of dogs during the summer months, was repealed. On the 13th day of October, 1874, an additional ordinance (No. 184) for the regulation and concentration of the business of slaughtering animals was adopted, and section 56 on the same subject was amended on the 19th of January, 1875. On the 16th day of July, 1875, sections 29, 34, 37, 38 and 42, relating to the sale of meat, fish, milk, vegetables and other articles of human food, were amended. On the 20th day of August, section 121, relating to contagious diseases of horses, was amended, and a new section (No. 185), requiring reports from veterinary surgeons, was adopted. On the 30th of November, section 100, relating to the care of stables and the removal of stable manure, was amended by the Board.

Orders of the Board.—The orders of this Board for the abatement of nuisances are issued upon the facts and evidence contained in the written reports of Sanitary Inspectors, the result of personal inspections of the premises complained of. Such reports are numbered and placed on file, and orders with corresponding numbers, in the form required by law, and applicable to each case, are issued in writing, and served upon the owners, lessees or tenants of the premises. Whenever the orders of the Board are not complied with, and there has been no request for a modification or suspension of the order, or a hearing thereon, suits are at once instituted for penalties, and this speedily secures the necessary compliance, except in a limited number of cases. It is rarely necessary for the Board to execute its own orders, by reason of the refusal or neglect of the owners or lessees of the property; though occasionally nuisances are of so aggravated a character that the abatement of the same should not await the delays necessarily attending suits for penalties.

During the period covered by the Report, the number of orders issued by this Board for the abatement of nuisances was twenty-nine thousand one hundred and one. Of this number, ten thousand two hundred and ten were issued under the first subdivision of section 14 of chapter 74, Laws of 1866, by the terms of which the party served is allowed three days in which to demand a hearing, by the Board, of the testimony which may be presented, to show that the order should be modified or revoked. In cases where no hearing has been asked for, and the order has not been complied with, final orders to the number of two thousand five hundred and eighty-five have been issued, and the Board has directed the attorney to commence suits for penalties for non-compliance with such orders. All other written orders, in number eighteen thousand eight hundred and ninety-one, have been issued under the second subdivision of section 14 of chapter 74, Laws of 1866, and are of a peremptory character, requiring that the nuisance be abated within five days; and, if not complied with, the Attorney has been directed to commence actions for penalties for non-compliance. In a few of the most aggravated cases, the Sanitary Superintendent has been directed by the Board to execute the orders, but the want of money for that purpose has prevented the Board from promptly executing many orders for the abatement of important nuisances, and has compelled it to resort to suits for penalties.

The following is a statement of the subjects of the orders above referred to:

Alleys, cleaned, disinfected, drained, graded, paved, or repaired.
Areas, cleaned and disinfected.
Ceilings, cleaned and whitewashed.
Cellars, cleaned, disinfected, connected with sewer, drained, filled, graded, or vacated.

Cesspools, cleaned, disinfected, connected with sewer, covers made for, emptied, filled, made, or repaired.
Cisterns, covers made for, disinfected, emptied and cleaned, filled, or repaired.
Drains, cleaned, disinfected, filled, made, obstructions in removed, or repaired.
Floors, house, privy, or stable, repaired or relaid.
Gutters, house, sidewalk, or street, cleaned, obstructions in removed, or repaired.
Halls, cleaned or whitewashed.
Hydrants, removed or repaired.
Leaders, connected with sewer, extended, made, repaired, or obstructions in removed.
Lots, vacant, cleaned, disinfected, connected with sewer, drained, filled, graded, or fenced.
Manure-vaults, cleaned, disinfected, constructed, covered, or repaired.
Pigs, removed, and pens cleaned, disinfected, or removed.
Pipes (soil and water), cleaned, extended, obstructions in removed, repaired, extended, or trapped.
Ponds, drained or filled.
Premises, cleaned, disinfected, connected with sewer, fumigated, or repaired.
Privies, disinfected, emptied, and cleaned.
Privy-houses, altered, cleaned, constructed, removed, or repaired.
Privy-vaults, connected with sewer, ventilated, filled, made, or repaired.
Roofs, repaired.
Sewer-pipes, constructed, obstructions in removed, repaired, or trapped.
Sidewalks, cleaned or reset.
Stables, cleaned or removed.
Stagnant Water, removed.
Urinals cleaned, constructed, or repaired.
Water-closets, cleaned, disinfected, connected with street sewer, constructed, removed, or repaired.
Walls, cleaned and whitewashed.
Yards, cleaned, disinfected, drained, filled, graded, paved, or repaired.

Suits for Penalties.—The following is a statement of the prosecutions required in the enforcement of sanitary regulations during the period of twenty months ending December 31, 1875:

Number of actions commenced		5,218
Classified as follows:		
For non-compliance with orders	5,076	
For violations of the Sanitary Code	142	
	——	5,218
Of this number there are now pending		567
Discontinued for all causes, the nuisance having been previously abated		3,078
Tried and judgment obtained		1,243
Judgment of dismissal or non-suit		230
Number of actions brought against the Health Department		3
Amount realized in settlement of actions and paid into City Treasury		$15,061.64

Tenement Houses have been defined, in chapter 908 of the Laws of the State for 1867, as "houses occupied by more than three families, living independently, and doing their cooking on the premises." It is estimated that there are 24,000 such houses in New York, and that they accommodate about one-half the population of the city. It is further estimated that about two-thirds the sickness and mortality of the city prevails in this half of the population. There is consequently twice as much sickness and twice as many deaths among this half as among the other half of the citizens. This Department has always considered the amelioration of the condition of the tenement house population one of its most important duties, and its officers are constantly engaged in studying the special causes of sickness, and in securing such modifications of the dwellings and their surroundings as will diminish the excessive sickness and mortality which prevail in them. It should not be forgotten, however, that it will never be possible by any reforms to secure a standard of health in this half of the population equal to that of the other half. It includes the people who must of necessity be more poorly fed, scantily clothed, and badly housed, than those who are more fortunately situated with regard to means, and many of the evils which prevail are due to ignorance of all the laws of hygiene, and to the inability of the parents, from their peculiar occupations, to take proper care of themselves or to give the necessary attention to the wants of their children. The mere crowding of many families into one house, which is unavoidable where land is expensive as in a large city, is in itself a fruitful cause of sickness. Contagious diseases are easily communicated, and proper isolation is impossible. Notwithstanding the difficulties which surround the problem of improving the health of the poorer classes, an immense amount of good has been already accomplished by this Board, and the tenement houses of to-day are very different from those which existed previous to 1866, when the Health Department was first organized. Leaky roofs have been repaired; thousands of ventilating windows have been opened into dark sleeping rooms and halls; ventilating shafts have been constructed; cellars have been drained; leaky walls made tight; waste pipes trapped; soil pipes ventilated by being extended through the roofs; yards have been graded, paved, and drained; and privy vaults have been connected with the sewers and ventilated by shafts extending above the roofs of the neighboring houses. In many cases houses have been entirely reconstructed under the orders of this Board. In general, it may be said, that owners have realized a better return in rentals from the improved health of their tenants in consequence of these betterments, and great benefit has resulted from the frequent visits of the health inspectors, in the increased intelligence of the tenants with regard to sanitary matters. This has also been secured in part by the circulation of concise information in the form of cards, circulars, and tracts on the more common diseases. Housekeepers are now much more frequently provided by the landlords, and by their constant presence maintain greater cleanliness and regard for the sanitary condition of the premises.

Some opposition is encountered from landlords, but generally the Board has found a cheerful co-operation in this work of improvement. The enormous value of the tenement house property of this city—probably $200,000,000—the high taxes, and the depressed condition of business, compel the Board to make haste slowly in urging radical and expensive changes in the construction of the tenement houses, and it is doubtful whether the majority of the existing houses, built upon our city lots, 25 feet by 100 feet, can be essentially modified in their plan.

It is hoped that improved blocks of tenement houses will be constructed on new systems, affording more air and space to each occupant.

The most important improvement in the condition of this population will result from dispersion over a wider area, which can, however, only come after rapid transit and cheap trains shall have been established to the upper wards beyond the Harlem river.

Cellar Dwellings.—The inspection of the cellars of the city used as human habitations, and the forcible vacation of many of them by the aid of the police, were so thorough in 1873, that the Board has done no fresh work in this direction. It has been contented with keeping them unoccupied as living rooms, and they are now quite generally used as shops, beds not being permitted in them. During the time included in this report recourse has not been had to forcible ejectment. Where beds have been found in cellars previously condemned and vacated, the landlord has been sued for violation of the Code, with the natural result of a peaceful vacation by the tenant.

In some few cases, among the better class of cellars, certain changes in construction have so improved their sanitary condition as to warrant the Board in issuing permits for a certain number of beds.

Dangerous Buildings.—Whenever it has been certified to the Board by the Sanitary Superintendent that any building or part thereof was unfit for human habitation by reason of its being so infected with disease as to be likely to cause sickness among the occupants, or when by reason of its want of repair it has become dangerous to life, such building has been ordered to be vacated, or the complaint has been referred to the Department of Buildings for action. This extreme measure has only been resorted to in exceptional cases.

House Drainage, Sewer Connections, Plumbing, etc.—Some of the greatest and most frequent evils with which occupants of our dwelling houses are afflicted are caused by imperfect sewerage and defective house drainage, by which sewer gases find constant admission. This evil is not limited to any class of dwellings, but is found alike in the plainest and most expensive ; nor is the most elaborate system of plumbing any proof that the work out of sight has been properly executed so as to exclude poisonous gases. An important part of the work in this direction during the past two years has been in the detection of faults in the plumbing of dwellings, and much good has been accomplished, though much more still remains to be done.

It is believed that the larger proportion of the dwelling houses in New York are still defective in this respect, and it is extremely important that citizens of all classes should understand that there is no security against the contamination of their dwellings by sewer gases, except through the thorough examination and proper repair and improvement of the system of drainage. It is unfortunate that sewer gases are not more offensive to the senses, as it is only in extreme cases that the leakage can be detected by the smell. Owing to this odorless impregnation of the atmosphere with emanations from the sewers, languor, stupor, headache, nausea, loss of appetite, disturbance of the bowels, and even low fevers caused by sewer gas, often make their appearance in families without arousing a suspicion of their true cause.

House drains and waste pipes, to be safe, must at all times be air and water tight and have ample ventilation. Every dwelling should have a distinct and separate sewer connection. This should be properly trapped near the street; should be constructed of iron with tight joints, or of vitrified earthenware or cement with tight joints, not of common mortar, and the bed on which the sewer rests should be thoroughly rammed to prevent subsequent settling of the pipe. The soil pipe, where it enters the sewer, should be properly trapped and securely joined, and should be made of iron with well leaded joints. The waste pipes from the basins, water-closets, sinks and bath tubs should be well trapped. The soil pipe should be extended through the roof, of undiminished diameter, to secure constant ventilation, and preventing siphoning. Specially objectionable are the old-fashioned brick drains and leaden soil pipes.

Disinfection of Privies has been performed by the Disinfecting Corps during the summer months. It is found to be much cheaper for this Board to disinfect the tenement house privies at the public expense than to compel the landlords to perform the work. Half a gallon of dead oil and an equal quantity of a strong solution of copperas, or of the refuse solution of sulphate and chloride of zinc from the factories in which tin-plate scrap is detinned, is found to be a sufficient disinfectant for an ordinary privy. The cost of material is about eight cents, and the cost of distribution about as much more. In 1874, 21,820, and 1875, 50,650 disinfections and redisinfections were performed by the Corps.

Disinfection of Yards and Cellars was also prosecuted wherever it was found necessary. In 1874 there were 2,777 yards and 1,362 cellars disinfected, and in 1875, 5,907 yards and 2,685 cellars.

Scavenging.—The removal of night-soil from the privies of the city, and its transportation to the boats furnished for its reception by this Department, was formerly a source of the greatest annoyance to citizens. Nothwithstanding the free use of water and the use of improved water-closets in the better class of houses, the exigencies of our tenement house system demand the continued use of the privy vault, and there are probably more than thirty thousand vaults still in the city. The invention of various improved forms of apparatus, consisting of air-tight tanks, pumps, etc., has led to a revolution in the system of scavenging, and in many cities the old system, which involved the emptying of privy vaults by means of tubs and rude carts in the darkness of the night, has been entirely superseded. Boston, Baltimore, Washington, New Orleans, Memphis, and many other cities, have, for several years, had the advantage of these improvements.

When the effort was first made by this Board to secure their introduction in this city, great opposition was encountered from the scavengers, who claimed that the improvements were in the hands of monopolists. As a result of this opposition the Legislature of the State, in April, 1873, passed an act giving to the Mayor the power to license scavengers, and to make rules and regulations for the government of this business. The Board of Health was, however, still empowered to grant or refuse permits in each case for the emptying of the privies.

By the ready co-operation of the Mayor, and by the application of steady pressure on the scavengers, the use of the improved apparatus is in a fair way to be secured. This improvement will be accomplished without inflicting any serious inconvenience upon the scavengers, who will provide themselves with some one of the improved forms of apparatus, and thus be enabled to comply with the requirements of the Board. So great is this improvement in the method of scavenging, that when it is adopted it is conducted by daylight, even in the most crowded thoroughfare, without producing annoyance or even attracting the attention of passers-by.

The Removal of Night-soil from the city has been efficiently performed, under a contract, by means of scows towed by steam beyond the city limits.

By contracting for five years' service the Board has secured the performance of this work at a much lower price than ever before.

The Removal of Dead Animals and Offal.—This work is now performed under the same contract as the removal of night-soil.

The dead animals are gathered in covered wagons and carried, together with the offal from the slaughter-houses, to the dock at the foot of West Thirty-eighth street, and thence conveyed daily to Barren Island. This system avoids the nuisance which formerly resulted from the rendering of these animals at the foot of West Thirty-eighth street.

The following tabular statement exhibits the receipts at the offal dock for the twenty months from May 1, 1874, to December 31, 1875:

Number of dead horses received at Offal Dock............	7,962
Number of dead cats and dogs received at Offal Dock.....	24,420

Cattle, Carcasses.	Calves (Bob), Carcasses.	Calves (Case), Carcasses.	Sheep, Carcasses.	Lambs, Carcasses.	Hogs, Carcasses.	Beef, lbs.	Veal, lbs.
419	2,130	409	496	70	266	16,328	7,068
Mutton, lbs.	Calves Heads.	Fish, lbs.	Ham, lbs.	Poultry, lbs.	Game, lbs.	Sausage, lbs.	Corned Beef, lbs.
1,042	8	243,483	1,080	17,233	1,131	306	274
Cattle Feet, lbs.	Antelope, lbs.	Bear Meat, lbs.	Venison, lbs.	Tongue, lbs.	Cheese, lbs.	Scollops, Galls.	Pigeons.
1,600	540	75	95	46	467	374	448

Street Cleaning.—By chapter 667, Laws of 1872, and by chapter 335, Laws of 1873, the duty of cleaning and keeping clean the streets, avenues, public places, alleys, lanes, gutters, wharfs, piers and heads of slips in this city devolved upon the Police Department, which has therein full and exclusive power and authority. To the same department belongs the duty of collecting the ashes and garbage, and the Bureau of Street Cleaning of the Police Department is charged with the work. Ordinances of the Sanitary Code upon the subject, which are of vital importance to the public health, cannot be enforced except by the active and cordial co-operation of the Boards of Health and Police, and relief is practically impossible from evils which have been long felt, so long as ashes and garbage cannot be collected separately, and whilst the sweepings and refuse of stores and houses are allowed to be thrown into the streets at all hours of the day and night.

The condition of the pavement in many of the streets renders thorough work more difficult, but that the system and method now in use might be materially improved, there can be no question. Regular inspections upon the streets in their respective districts have been constantly required from the Sanitary Inspectors, and abstracts therefrom have from time to time been officially transmitted to the Departments of Police and of Public Works.

Disinfection of Street Gutters has been performed during the summer months whenever it seemed necessary, a special disinfecting corps being organized for the purpose of disinfecting street gutters and privies.

During the summer of 1874, 2,567¾ miles of street gutters, and during the summer of 1875, 1,645½ miles of street gutters were disinfected with carbolic acid, and either sulphate of iron or the refuse of sulphate and chloride of zinc.

The Disposal of Street Sweepings, Ashes, and Garbage.—Intimately connected with the subject of street cleaning is the disposal of the material collected. The amount of material is enormous: 1,031,194 loads in the year 1875. It consists of three distinct classes of refuse—street sweepings, ashes, and garbage.

Street Sweepings consist of fine sand mixed with more or less horse manure. The quantity of the latter is generally small, as will be seen by the following analyses made by the Chemist to the Board:

Table of Analyses of Street Dirt taken in New York City.

Number.	Date.	Locality.	Percentage of				Sulphureted Hydrogen.
			Water.	Organic and Volatile Matter.	Mineral Matter.	Nitrogen.	
1	1874. Feb. 26	Sixth avenue, at Thirty-sixth street	4.265	35.735	60.000	0.560	None.
2	" 26	Front of Fifth Avenue Hotel	3.903	29.376	66.721	0.360	None.
3	" 26	Broadway, at Canal street	3.853	37.512	58.575	....	......
3a	" 26	Broadway, at Canal street	2.650	35.200	62.150	0.340	Slight.
4	" 27	Third avenue, at Fiftieth street	1.822	21.472	76.706	0.250	None.
5	" 27	Grand and Madison streets	2.620	32.622	64.758	0.340	Slight.
6	" 27	Rivington and Willett streets	2.325	28.359	69.316	0.280	None.
7	" 28	Seventh avenue, at Fifty-third street	0.697	5.841	93.462	0.084	None.
8	March 2	Avenue A, at Twenty-third street	0.691	16.361	82.948	0.168	None.
9	" 2	Ninth avenue, at Twenty-third street	7.491	35.674	56.835	0.448	Slight.
10	" 2	Broadway, at Fourteenth street	3.999	33.311	62.683	0.392	Slight.
11	" 2	Avenue C, at Sixteenth street	2.000	29.650	68.350	0.840	Slight.
12	" 3	Eighth avenue, at Fourteenth street	3.101	28.720	68.179	0.364	None.
		Average	3.032	28.454	68.514	0.369	

From the preceding analyses it is apparent that the amount of manure contained in the street sweepings is not sufficient to interfere with their use for filling sunken lots, and the idea that they are sufficiently rich in fertilizing material to have a pecuniary value is not sustained.

Ashes, when free from garbage, are entirely unobjectionable for filling, and are worthless as a fertilizer.

Garbage, when properly separated from ashes and street sweepings, is of material value, and it is believed some considerable portion of the expense of its collection would be covered by its sale.

While the above is true of these three forms of city refuse, when they are collected separately, the case is quite different when, as at present, they are mixed. They then no longer possess any pecuniary value, except for filling sunken lots ; but for this purpose they are only available for bulkheads and piers, or for localities remote from dwellings. It would never be proper to use such material for making land which is to be soon occupied by dwelling houses. The process of putrefaction and decomposition is a slow one, and it would not be safe, for a few years at least, to build upon land made of such material. When used for filling the process will be necessarily offensive while it is going on, unless disinfectants are freely used or the material is speedily covered with several feet of good earth or gravel.

It would seem that there are but two alternatives. Either the different kinds of city refuse must be collected separately, when the street sweepings and ashes may be used for filling and the garbage sold, or, if not separated, the mixed refuse must be carried beyond the city limits.

Harlem Flats.—This peculiar district of the city has been a subject of constant solicitude and action on the part of the successive Boards of Health. As the name indicates, this district consisted originally of low lands partly under water at high tide, intersected at several points by estuaries and creeks. The Flats extend from Ninety-second street north for a mile or more, and from the East river, as far west, at some points, as Fifth avenue. The extension by high causeways of Madison, Fourth, Lexington, Third, Second, and First avenues, and of the cross streets, resulted in the damming of the tide-waters and estuaries and the production of stagnant ponds. The ponds often covered entire blocks and were in some cases five or six feet deep.

This evil was aggravated by the use of filling on the streets, and also on some of the blocks, which was more or less contaminated by garbage and other refuse. The following extracts from a report made by Dr. Moreau Morris, City Sanitary Inspector of the last Board of Health, and dated May 10, 1872, will sufficiently indicate the condition of this region before the present Board of Health was appointed.

BUREAU OF SANITARY INSPECTION,
HEALTH DEPARTMENT, NEW YORK CITY,
May 10, 1872.

Col. EMMONS CLARK, *Secretary to the Board of Health :*

In compliance with a resolution of the Board, dated 8th instant, as follows:

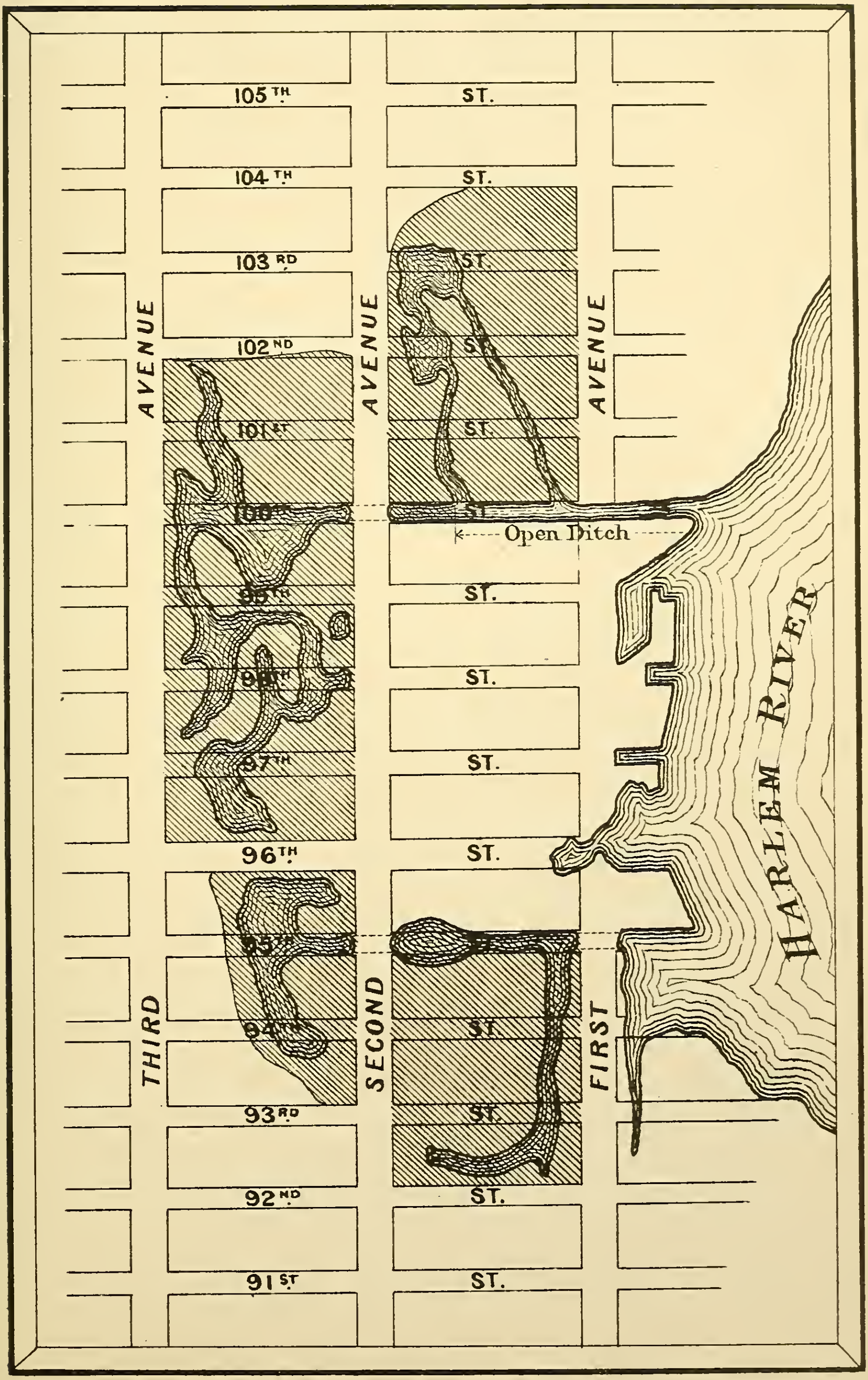
Resolved, That the City Sanitary Inspector be and is hereby directed to inspect the grounds situated between Ninetieth street and One Hundred and Sixth street, East river, and to report upon the condition of the same on Friday, at 2 o'clock P. M., and to recommend the necessary measures to abate any nuisance found to exist.

I have the honor to report that, in company with Health Commissioner Magnus Gross, an inspection was made on the 9th instant. It was found that Mr. James L. Brown, the street cleaning contractor, was filling in upon the marshes lying east of Second avenue from Ninety-sixth street to Ninety-ninth street, with street dirt, cellar excavations, and building refuse. From Ninety-fifth street to Ninety-sixth street had been filled in with the same kind of material during the years 1870 and 1871, and was completed. No filling or depositing of any kind of material has been or was being made above Ninety-ninth street, except that One Hundred and Fourth street had been filled in from the East river to Second avenue, one year ago, with apparently the same kind of material. At the time of our inspection there were seven or eight scows being unloaded, and the contents, consisting of the material before described, was being carted to different parts of the salt marsh included between Ninety-sixth and Ninety-ninth streets, east of Second avenue. This material was carefully observed, and although there was some offensive odor arising therefrom, it did not appear worse than that produced by collecting and carting the same material as it is taken from the streets.

There seemed to be a much more offensive odor proceeding from the untouched marshy land lying adjacent to and within the limits of the filling.

The process of removal from the boats and dumping it from the carts, by stirring and handling this rubbish and refuse, seemed to cause the greater part of the offense, as it was during this process that the confined gases escaped.

There appeared to be but the smallest quantity of garbage intermixed with the mass. Several boat loads of good loam were also being unloaded, and used to mix with and cover the street dirt as it was dumped. Proceeding to One Hundred and Fifth street, it was found to have been filled in with good earth entirely, free from any admixture with street dirt. Lying between One Hundred and Sixth street and One Hundred and Tenth street, there is a low salt marsh in which no filling had been made of any kind, and about which there appeared to be quite as offensive odors as from the filled-in lands or marshes below; and lying between



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Second and Third avenues, from Ninety-third to One Hundredth street, there is also another extensive marsh meadow through which the tide ebbs and flows at times, covering the whole surface of the ground, and into which much sewage flows from the houses westerly of Third avenue.

* * * * * * * * * * * *

Respectfully submitted,

MOREAU MORRIS, M. D.,
City Sanitary Inspector.

The peculiarly objectionable features of this region are due, in part, to the natural condition of the ground, and in part to the want of a comprehensive plan of improvement.

In the autumn of 1872, Sanitary Inspector Viele, then and now in charge of this district, recommended a plan for checking the overflow of these lands, and filling the stagnant ponds, and then converting the entire region into available and healthy building lots. The plan involved the filling of the whole section with earth, commencing at Fifth avenue, and continuing a uniform grade till the whole surface was raised several feet above high-water mark, thus crowding out the water, and reclaiming the entire district. In addition to filling, the plan required a comprehensive system of drains to remove the water of springs, and take the place of the old water-courses extinguished by the filling. Had it been possible to carry out this plan, the subject of "Harlem Flats" would long ago have ceased to possess any importance.

During the year 1873 considerable areas in this region were filled. The Board encouraged this filling, but at the same time exercised a supervision over the character of the material employed, as far as it was possible with its limited number of inspectors. The natural and exposed surfaces of these tidal lands were so offensive, and the emanations arising from them so deleterious, that hardly any material used as filling could render them any more obnoxious to the public. There appeared, therefore, to be no objection to the use of ashes, street sweepings and cellar-earth for filling these lands; but, in collecting this material, it is impossible to entirely exclude garbage, and the supervision exercised by this Board was directed to the exclusion, as far as possible, of this kind of refuse. Had the Board insisted upon the use of pure earth only, the filling of the region would have become practically impossible.

From time to time the contractors were detected in the use of objectionable material. In such cases they were required to use disinfectants freely, and were at once directed to discontinue the use of the offensive filling. The height of the avenues and cross streets above these tidal lands rendered it possible to deposit the material collected in the streets (which, in the winter months, has little garbage) below the sewer-level without detriment to health. In this location it would not be reached in making future excavations for cellars.

During the winter of 1873-4 the filling in this region progressed rapidly, and the contractors, as well as private parties, became very careless in regard to the selection of the proper material. In November, 1874, this Board was compelled to take very vigorous action in order to prevent the use of objectionable matter. The attention of the Police Department was called to the action of its agents, the Department of Public Works was urged to restrain its contractors, and private parties were forbidden to use refuse contaminated with garbage, in this region.

The following correspondence indicates the character of the action of the Board at this time :

HEALTH DEPARTMENT, NO. 301 MOTT STREET,
NEW YORK, February 3, 1874.

Hon. HENRY SMITH, *President Police Department :*

SIR—At a meeting of the Board of Health, held on the 27th day of January, 1874, the complaints presented by citizens residing near that portion of the city lying between Ninety-fifth and Ninety-eighth streets, east of Second avenue, in regard to the dumping of ashes, garbage and street refuse upon the low lands included within the boundaries above stated, were referred to me, with power to take such action as seemed proper. Having personally inspected the district mentioned, and being satisfied that the material now being deposited there should not remain within the limits of the city, I respectfully request that the dumping of such material may be discontinued forthwith, and hereby notify you that all authority so to do accorded by this Board is hereby revoked.

Very truly yours, etc.,

C. F. CHANDLER,
President.

Resolutions adopted by the Board of Health, February 10, 1874 :

Whereas, It is represented to this Board that ashes, garbage and street filth are being dumped upon the lots within the city limits ; and,

Whereas, In the opinion of this Board, such dumping is dangerous to life and detrimental to health ;

Resolved, That the Board of Police be respectfully requested and ordered forthwith to discontinue the dumping of ashes, garbage and street filth within the limits of the City of New York.

Resolved. That the Board of Police be requested to cause the arrest of all persons dumping ashes, garbage and street filth within the limits of the city, without a special written permit so to do from this Board, save and excepting in cases where the ashes are absolutely clean, inoffensive, and not mixed with other material.

* * * * *

Resolved, That the attention of the Department of Public Works be respectfully called to the fact that contractors for work under said Department, between Ninety-fifth and One Hundred and Tenth streets, Fifth avenue and East river, are using street sweepings and garbage as filling, in violation of the Sanitary Code, as well as the terms of their contract with said Department.

On the 15th of February the following communication was received from the Department of Public Works:

Department of Public Works,
Commissioner's Office, Room 19, City Hall,
New York, February 14, 1874.

To the Health Department :

I have to acknowledge the receipt of your communication of 11th inst., transmitting a resolution of your Honorable Board, calling the attention of this Department "to the fact that contractors for work under said department, between Ninetieth and One Hundred and Tenth streets, Fifth avenue and East river, are using street sweepings and garbage as filling, in violation of the Sanitary Code as well as the terms of their contracts with said Department.

After a thorough examination of the works now in progress in that district, under the direction of this Department, I find that in no instance are the contractors allowed to use other material for filling than that allowed by the terms of the contract and the provisions of the Sanitary Code.

The works now in progress in that district are as follows :

Regulating, grading, etc., Ninety-sixth street, from Second to Fifth avenue.

Regulating, grading, etc., Madison avenue, from One Hundred and Fourth to One Hundred and Fifth street.

Constructing underground drains between Ninety-second and One Hundred and Sixth streets, Third avenue and Harlem river.

Under the contract for the construction of the underground drains, the sunken lots on the line of the same are being filled in, and section 9 of such contract permits the use of "coal ashes perfectly free from all garbage or other impurities." The utmost vigilance is exacted from the inspectors and engineers in charge of the work, to prevent any violation of the terms of the contract. The inclosed diagram shows the area and location of the ground being filled in under this contract.

Private parties, in no way connected with this Department, are depositing street sweepings and garbage on the blocks lying between Ninety-fifth and One Hundredth streets, Second avenue and Harlem river, but this being private ground, this Department has no control over it, and no authority to stop the filling.

Very respectfully,
GEORGE M. VAN NORT,
Commissioner of Public Works.

From time to time orders were issued upon private parties, directing the filling of special lots or blocks of land, as seemed to be necessary. In June, 1874, the attention of the Department of Public Works was again called to the subject, and the importance was urged upon this Department of causing the contractors to fill from the west towards the east, and not in the opposite direction, as, by the latter plan the water became ponded and stagnant. July 20, 1874, the attention of the Department of Public Works was specially called to the district west of Fourth avenue, between Ninety-sixth and One Hundred and Fourth streets. This district was described as a typical malarious locality, and its immediate drainage was strongly urged upon that department.

As the work of properly filling and draining this district did not progress with rapidity, or in the manner considered necessary by this Board, in the spring of 1875, additional certificates of drainage were forwarded to the Department ot Public Works, and special orders were issued upon private parties, directing the filling of single lots and blocks of land. At the same time the aid of the Police was invoked to prevent private parties, as well as contractors, from using offensive material in the filling. To afford temporary relief, the Board decided to adopt an extensive system of disinfection in this region, and under the Sanitary Superintendent and Disinfecting Corps, with a considerable number of additional laborers and extra carts, distributed—

8,986 gallons of dead oil.
4,725 gallons of iron liquor.
20 gallons carbolic acid.
25 pounds of saw-dust, as an absorbent, in this region, at a cost

For material	$1,219 18
For labor and horse-hire	706 55
Making a total expense of	$1,925 73

On June 1, the following communication was received from the Department of Police :

Police Department of the City of New York,
300 Mulberry Street,
New York, May 28, 1875.

Colonel Emmons Clark, *Secretary:*

Sir—At a meeting of the Board of Police held this day, the following Preamble and Resolutions were adopted :

Whereas, The Board of Police have, under the Laws of the State, the right and power to deposit such portions of the dirt and ashes collected by the Bureau of Street Cleaning, as may be suitable and requisite for filling in low and sunken lots, and approved by the Board of Health. Therefore, be it

Resolved, That the Board of Health be and is hereby requested to express its judgment forthwith, and also, from time to time, and communicate the same to this Board, as to the suitability of the material that is now being or may be delivered by the Street Cleaning Bureau, and made use of for the filling in of low and sunken lots in this city.

Resolved, That the Board of Health be and is hereby requested to communicate what measures, in its opinion, if any, in addition to those now made use of, are requisite and necessary to be taken by the Board of Police, to render the material gathered by the Street Cleaning Bureau, and now being used for the purpose of filling low and sunken lots in the upper part of the city, neither dangerous to life nor detrimental to health.

S. C. HAWLEY,
(A true copy.) *Chief Clerk.*

This communication was referred to the Sanitary Committee, and the following report was presented on June 8th :

HEALTH DEPARTMENT,
June 8, 1875.

The Sanitary Committee, to whom at the last meeting of the Board the resolution of the Board of Police asking for instructions about the propriety of using certain materials collected in the city for filling in sunken lots, would report :

That those lands which it is proposed to fill in, have been under the constant observation of the Board of Health. That according to the report of the Sanitary Inspector of the district, those which are now filled in were formerly lands sunken below high-water mark, receiving the deposits from high tides, which, when the water was low, caused a dangerous effluvia to arise, and that with the increased growth of the city from below and above, threatened soon to become the site of serious danger to the public health. As the works connected with the growth of the city were carried on, and the streets were laid out, water became shut in and stagnant. Under these conditions, the Board urged the filling of those low lands as a matter of necessity for the public health.

At the present time reports are being circulated that these lands which have been filled in are the source of offensive effluvia, and are dangerous to life. Your Committee have made several visits to the lands in question, with a view of determining whence the odors come which are source of annoyance. On going over the ground very carefully, east of Second avenue, they could perceive no odor emanating from the ground, save in a small portion near the gas house, which has not been filled in as yet, and which is still covered with water. West of Second avenue, between it and Third, and from Ninety-ninth street to One Hundred and Third street, there is an odor from the ground, which is partially covered with water, or damp, and has small streams emptying in it which come from the high ground west of Third avenue. This water serves to keep the ground moist, and it is also probable that the tidal water, to a certain extent, moistens the ground ; in this ground, according to the Sanitary Inspector, a stone drain was ordered ; but only open drains, which fail to convey off the water, have been formed. This ground needs covering with more earth, and the drain which was previously ordered should be constructed. Another nuisance in this locality, and one which needs to be abated, is a row of houses or shanties inhabited by laborers, situated on Third avenue, in front from One Hundred and Sixth to One Hundred and Eighth streets, but in the rear overhanging an inlet of the river, whose murky water smells very strongly; the water-closets of these shanties discharge their contents into this inlet, and the boards are filthy, and extending low down appear to prevent the removal of the excrement at high tide. Considerable odor emanated from this nest; the water of this inlet also receives a short sewer from Third avenue, and from these causes and the drainage of some stables on its banks, its water has a very offensive odor; at low tide the offensive nature of the place is said to be still greater.

West of Third avenue there is a pond of water which was formerly a part of this inlet, and which now is formed partly by being shut off, partly by percolation from the inlet. This water is dark and offensive; a similar pool of water exists between Fourth and Madison avenues. At the site of One Hundred and Sixth and One Hundred and Seventh streets another is formed, at the point of proposed opening of Lexington avenue at One Hundred and Third and One Hundred and Fourth streets, Lexington avenue, if continued, would cross and cut off the pond at One Hundred and Sixth to One Hundred and Eighth streets.

Beside the above causes for the odor complained of, on two visits there was an odor coming from the boats and carts conveying the material for filling in, due in part to carbolate of lime used for disinfection, and partly to the material itself.

On the occasion of the last visit, neither boats nor carts were present on the ground, and the only odors perceptible were due to the causes above mentioned, viz.:

1st. The water in those places not yet filled in, a considerable part of which belongs to street extensions, and of the inlet.

2d. The shanties on Third avenue at One Hundred and Sixth to One Hundred and Eighth streets.

3d. The piece of ground between Ninety-ninth street and One Hundred and Third street.

4th. And an odor, perceptible only for a very short distance, from the boats receiving manure at the foot of Ninety-fifth street and the night-soil boat.

Of these odors the one which was the most perceptible, and which undoubtedly is the most dangerous to the life and health of the neighborhood, is that one coming from the stagnant pools of water in the unfilled portions, from the banks of the upper portion of the inlet, and from the privies of the laborers' shanties. Your Committee would fear an outbreak of typhoid fever from this cause.

In order to meet this, they would urge on the Department of Public Works the necessity of completing the work of street extension and the sewerage of this district. They would also advise the temporary disinfection of these stagnant ponds by the use of carbolic acid, a measure which they recognize as but a temporary shift, needing frequent renewal, and costly if continued, because delaying the better means of filling in this land, and thus crowding out this fetid water and properly draining it. They advise, in addition, that the proprietors and tenants of the shanties mentioned be ordered to clean these places, and that the privies be so reconstructed as to prevent the nuisance they now occasion, or if this be found impracticable that they be closed. If any of the lands covered with stagnant water cannot be filled by the Department of Public Works, they advise that the proper parties to do the work be discovered and ordered to fill them.

With reference to the land extending from Second to Third avenue, and Ninety-ninth to

One Hundred and Third street, your Committee think that it should be covered with fresh earth to a higher level, and properly drained.

They would advise that the engineer be called on to report as to what amount of earth is needed, and to decide on the position of drains at the earliest possible date.

Finally, they would report that they consider that the only material to be used in filling should be either clean ashes or fresh earth and stones.

E. G. JANEWAY,
Chairman.

On the receipt of this report the following resolutions were adopted by the Board June 8, 1875 :

Whereas, The district of the city between Ninety-first and One Hundred and Ninth streets, Fifth avenue and East river, is and has been for several years in a condition dangerous to life and detrimental to the public health, as appears from the records of this Department; and

Whereas, This condition is due to the fact that, in reclaiming the tidal land by filling, the surface has not been brought to a proper and uniform level, considerable areas have not been covered at all, and are consequently occupied by large pools of stagnant water, into one of which a sewer empties its contents, while the other areas, often including many blocks, are so low as to be constantly saturated with water, and offensive; and

Whereas, No effective system of drainage has been adopted in this district, to take the place of the old water-courses which have been completely obstructed ; and

Whereas, The only remedies which are available to correct the dangerous condition of this district are filling and draining ; therefore

Resolved. That the Department of Public Works be and is hereby respectfully requested to complete, as speedily as possible, the extension of Lexington avenue, Madison avenue, First avenue, and the intersecting cross streets, to cause the stagnant pools to be filled, to put at least two feet of good earth upon the surface of the district between Ninety-third and One Hundred and Fourth streets, east of Third avenue, and to establish a comprehensive system of drainage independent of and in addition to the sewers, all in accordance with the certificates requiring the drainage of such portion of the city by and under the direction of said Department, heretofore made and forwarded in the year 1873, and again in May last by this Board, under and in pursuance of the provisions of chapter 566 of the Laws of 1871.

Resolved, That in the opinion of this Board there is no material save fresh earth better adapted for filling these sunken areas than clean coal ashes, and that the Board of Police be respectfully requested to collect these ashes free from garbage and street sweepings, and send the same to this district.

Resolved, That the Sanitary Superintendent be and is hereby directed to cause all the stagnant pools and sunken areas to be thoroughly disinfected, and to repeat such disinfection as often as may be necessary, and that he be also directed to inspect the privies of the houses on the east side of Third avenue, between One Hundred and Sixth and One Hundred and Eighth streets, and cause them to be cleaned and disinfected, and, if necessary, to take the proper steps to cause said houses to be vacated, and that he be directed to place an inspector in the district, with orders to prevent the dumping of any material save fresh earth and clean ashes.

Resolved, That the President and Chairman of the Sanitary Committee be requested to confer with the Mayor and the Commissioner of Public Works upon the importance of immediate action for the relief and improvement of this district.

Several conferences were held between the Mayor, the Commissioner of Public Works, and the Health Commissioners, resulting in the presentation to the Board of Aldermen of ordinances authorizing the Department of Public Works to immediately execute the proper improvements, as shown by the following communication from the Mayor :

EXECUTIVE DEPARTMENT, CITY HALL,
NEW YORK, June 10, 1875.

To the Honorable the Common Council:

GENTLEMEN—I herewith transmit a communication from the Commissioner of Public Works and from the President of the Health Department, together with copies of several proposed ordinances, which I submit for your consideration, and recommend that you take prompt action upon the same.

WM. H. WICKHAM,
Mayor.

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE, ROOM NO. 19, CITY HALL,
NEW YORK, June 10, 1875.

Hon. WILLIAM H. WICKHAM,
Mayor, etc., of the City of New York:

SIR—Upon consultation with members of the Board of Health, and due consideration of the subject herein referred to, I would respectfully request that the following resolutions and ordinances be submitted by you to the Honorable the Common Council, requesting their early action thereon. They are as follows:

Filling in sunken lands, Third avenue and Harlem river, One Hundred and Sixth, to One Hundred and Eighth street.

Filling in sunken lands, Fourth and Fifth avenues, Ninety-sixth to One Hundred and Fifth street.

Filling in sunken lands, Third and Fifth avenues, One Hundred and Fifth to One Hundred and Ninth street.

Filling in sunken lands, Third and Fourth avenues, One Hundred and Third to One Hundred and Fourth street.

Respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

HEALTH DEPARTMENT, CITY OF NEW YORK,
June 10, 1875.

To His Honor MAYOR WICKHAM :

MY DEAR SIR—At the conference held to-day, between the Commissioner of Public Works and the Health Commissioners, it was decided that the only plan by which the Harlem Flats can be relieved is by the action of the Board of Aldermen.

Legal difficulties stand in the way of immediate action under ordinary methods, and unless the Board of Aldermen authorize the Commissioner of Public Works to put a force of men into the district at once, to fill up the stagnant waters, and raise the grade of the low and saturated areas, no relief can be secured till the mischief of this season has been already done.

I would urge, therefore, the importance of the immediate passage of the resolutions which have been prepared at this conference for presentation to the Board of Aldermen.

Very respectfully, yours,

C. F. CHANDLER,
President Health Department.

(G. O. 334.)

Resolved, That the sunken lands, from Third avenue to Harlem river, between One Hundred and Sixth and One Hundred and Eighth streets, be filled in by contract or in such manner as the Commissioner of Public Works shall deem best for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 335.)

Resolved, That the sunken lands between Fourth and Fifth avenues, from Ninety-sixth to One Hundred and Fifth street, be filled in by contract, or in such manner as the Commissioner of Public Works shall deem necessary for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 336.)

Resolved, That the sunken lands between Third and Fifth avenues, from One Hundred and Fifth to One Hundred and Ninth street, be filled in by contract or in such manner as the Commissioner of Public Works shall deem best for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 337.)

Resolved, That the sunken lands from Third to Fourth avenue, between One Hundred and Third and One Hundred and Fourth streets, be filled in by contract or such manner as the Commissioner of Public Works shall deem necessary for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

Which were laid over.

At the same time the following communication was received from the Commissioner of Public Works :

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE—ROOM 19, CITY HALL,
NEW YORK, June 21, 1875.

To the Honorable the Commissioners of the Health Department:

GENTLEMEN—Having recommended to the Board of Aldermen, through his Honor the Mayor, the adoption of ordinances directing the draining and filling in of the following sections of land, viz.:

Between Third avenue, Harlem river, One Hundred and Sixth and One Hundred and Eighth streets.

Between Fourth and Fifth avenues, Ninety-sixth and One Hundred and Fifth streets.

Between Third and Fifth avenues, One Hundred and Fifth and One Hundred and Ninth streets.

Between Third and Fourth avenues, One Hundred and Third and One Hundred and Fourth streets.

You are respectfully requested to take early action under chapter 566 of the Laws of 1871, declaring such work to be necessary, and directing this Department to proceed with the same, to enable it to take the work in hand as soon as the necessary ordinances shall have been adopted.

Very respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

In response to this the Board adopted, on June 22d, the necessary resolutions requesting and directing the Department of Public Works to drain the specified districts by means of drains and sewers, accompanying the resolutions by the necessary drainage certificates of the Sanitary Superintendent. As a part of the history of the effort to reclaim the Harlem Flats, it should be mentioned that after the passage of the resolutions of the Board of Health of June 8, 1875, on June 10, the Board of Aldermen referred the subject of Harlem Flats to a committee which reported on the 17th, when resolutions were adopted requesting the Commissioner of Public Works to examine the Harlem Flats, and confer with the Board of Health, and to take immediate steps to compel the owners of property to take the necessary action for the improvement of the district, and also to improve the drainage system of the region. To this the Commissioner of Public Works responded in the following communication :

PROCEEDINGS OF THE BOARD OF ALDERMEN.

* * * * *

The President laid before the Board the following communication from the Department of Public Works:

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE—ROOM 19, CITY HALL,
NEW YORK, June 21, 1875.

To the Honorable the Board of Aldermen:

GENTLEMEN—I have the honor to acknowledge the receipt of the resolutions adopted by your Honorable Board on the 17th instant, requesting me to examine the work of filling and draining the Harlem Flats, done under my predecessor, and to cause such additional filling as may, in my opinion, be required to be done immediately; also, to confer with the Board of Health with the view of compelling property-owners to fill up their lots to a grade to be adopted by this Department, and to take measures to inspect the under-drainage of the district, and to improve it, if necessary.

The subject of improving the condition of the low lands between Yorkville and Harlem has engaged my attention and that of the engineers of this Department for some time past, and the result of our investigations and conference with the Commissioners of the Health Department was the recommendation contained in my letter to his Honor the Mayor, dated 10th inst., and transmitted by him to you for the adoption of ordinances directing the filling and draining of four sections of land, covering all the work necessary to be done.

All work to be done for the improvement of these lands will have to be paid from the proceeds of assessment bonds, and will be assessed upon the property benefited. Your action by ordinance may be necessary to legalize the assessment and to meet the objections of the Finance Department to the payment of any expenditure unless legally authorized beyond technical cavil.

In order to secure in advance the necessary material for filling, I have advertised for offers of clean earth in that vicinity, and have received quite a number from property owners willing to give surplus earth to the city free of charge; but I will be unable to avail myself of these offers until authorized to incur the necessary expenditure for hauling, etc.

Very respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

Which was laid over in connection with General Orders Nos. 334, 335, 336, and 337.

The necessary resolutions for legalizing the proper filling and draining came up from time to time in the Board of Aldermen, but were never adopted.

On July 1, 1875, the following resolutions were adopted in the Board of Aldermen, referring the matter to the Corporation Counsel for his opinion.

PROCEEDINGS OF THE BOARD OF ALDERMEN, JULY 1, 1875.

*   *   *   *   *

Whereas, His Honor the Mayor sent the following communications from the Board of Health and the Commissioner of Public Works; and

Whereas, The Board of Health have extraordinary powers in cases of emergency; and

Whereas, Said Board have taken no measures to enforce the filling in of these lots, according to the powers conferred on them; and

Whereas, The Commissioner of Public Works has no appropriation to do this work with; and

Whereas, The Common Council has no power, under the charter of 1873, article 2, chapter 18, also article 16, chapters 89 and 112; and whether, if the Common Council ordered the said work to be done, would it be a legal and valid assessment on the property so benefited; be it

Resolved, That the communications aforesaid be and they are hereby referred to the Corporation Counsel for his opinion as to whether any resolution or ordinance passed by this Board in conformity with the recommendations contained in said communications would, under the existing laws upon the subject, be valid, and also whether the Commissioner of Public Works would at present be authorized under such a resolution or ordinance to incur any expense whatsoever, there being no appropriation from which the same can now be paid.

Executive Department—City Hall,
New York, June 10, 1875.

To the Honorable the Common Council:

Gentlemen—I herewith transmit a communication from the Commissioner of Public Works and from the President of the Health Department, together with copies of several proposed ordinances, which I submit for your consideration, and recommend that you take prompt action upon the same.

WM. H. WICKHAM, *Mayor.*

Department of Public Works,
Commissioner's Office, Room No. 19, City Hall,
New York, June 10, 1875.

Hon. William H. Wickham,
Mayor of the City of New York:

Sir—Upon consultation with members of the Board of Health, and due consideration of the subject herein referred to, I would respectfully request that the following resolutions and ordinances be submitted by you to the Honorable the Common Council, requesting their early action thereon. They are as follows:

Filling in sunken lands, Third avenue and Harlem river, One Hundred and Sixth to One Hundred and Eighth street.

Filling in sunken lands, Fourth and Fifth avenues, Ninety-sixth to One Hundred and Fifth street.

Filling in sunken lands, Third and Fifth avenues, One Hundred and Fifth to One Hundred and Ninth street.

Filling in sunken lands, Third and Fourth avenues, One Hundred and Third to One Hundred and Fourth street.

Respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

HEALTH DEPARTMENT, CITY OF NEW YORK,
June 10, 1875.

To his Honor MAYOR WICKHAM:

MY DEAR SIR—At the conference held to-day, between the Commissioner of Public Works and the Health Commissioners, it was decided that the only plan by which the Harlem Flats can be relieved is by the action of the Board of Aldermen.

Legal difficulties stand in the way of immediate action under ordinary methods, and unless the Board of Aldermen authorize the Commissioner of Public Works to put a force of men into the district at once, to fill up the stagnant waters, and raise the grade of the low and saturated areas, no relief can be secured until the mischief of this season has been already done.

I would urge, therefore, the importance of the immediate passage of the resolutions which have been prepared at this conference for presentation to the Board of Aldermen.

Very respectfully yours,

C. F. CHANDLER,
President Health Department.

(G. O. 334.)

Resolved, That the sunken lands, from Third avenue to Harlem river, between One Hundred and Sixth and One Hundred and Eighth streets, be filled in by contract or in such manner as the Commissioner of Public Works shall deem best for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 335.)

Resolved, That the sunken lands, between Fourth and Fifth avenues, from Ninety-sixth to one Hundred and Fifth street, be filled in by contract or in such manner as the Commissioner of Public Works shall deem necessary for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 336.)

Resolved, That the sunken lands, between Third and Fifth avenues, from One Hundred and Fifth to One Hundred and Ninth street, be filled in by contract or in such manner as the Commissioner of Public Works shall deem best for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

(G. O. 337.)

Resolved, That the sunken lands, from Third to Fourth avenue, between One Hundred and Third and One Hundred and Fourth streets, be filled in by contract or in such manner as the Commissioner of Public Works shall deem necessary for the interests of the city, under the direction of the Commissioner of Public Works; and that the accompanying ordinance therefor be adopted.

In response to this resolution the following opinion was returned by the Corporation Counsel.

LAW DEPARTMENT.

Opinion of the Counsel to the Corporation.

The powers of the Common Council in reference to the filling of sunken lands in the City of New York are derived from sections 267, 269, 270, and 271 of the act of April 9, 1813, and from the second section of the act of February 21, 1824.

The Common Council has power to pass ordinances for the filling of the sunken lands known as the Harlem Lots, and a valid assessment for the expenses thereof can be laid upon the lots benefited.

It is advisable that in the first instance the owners of said lots be directed and required to fill in the same.

After such provision in reference to the owner or owners, ordinances should be drawn in the usual manner, reciting that the city believes it necessary for the more speedy execution of the work to do it at its own expense and directing that the work be done by the Commissioner of Public Works.

LAW DEPARTMENT,
OFFICE OF THE COUNSEL TO THE CORPORATION,
NEW YORK, July 8, 1875.

The Honorable the Common Council:

GENTLEMEN—I have received a resolution adopted by your Honorable Body on the second of July instant, requesting my opinion as to the power of your Board to pass certain proposed ordinances for the filling of sunken lands in a portion of the city known as the Harlem Flats. The resolution referred to me mentions four proposed resolutions for such ordinances covering the following tracts: (1.) Lands from Third avenue to the Harlem river, between One Hundred and Sixth and One Hundred and Eighth streets. (2.) Lands between Fourth and Fifth avenues, from Ninety-sixth to One Hundred and Fifth street. (3.) Lands between Third and Fifth avenues, from One Hundred and Fifth to One Hundred and Ninth street. (4.) Lands from Third to Fourth avenue, between One Hundred and Third and One Hundred and Fourth streets.

These resolutions are accompanied by a letter from the President of the Health Department, dated June 10, 1875, to his Honor the Mayor, urging the importance of their immediate passage; also by a letter from the Commissioner of Public Works, dated June 10, 1875, to his Honor the Mayor, requesting that such resolutions and ordinances be submitted to the Common Council, with a request for early action thereon; also a letter from his Honor the Mayor, dated June 10, 1875, to the Common Council, transmitting the proposed ordinances, and recommending that prompt action be taken upon the same.

The resolution adopted by your Honorable Body recites also that the Board of Health has extraordinary powers in cases of emergency, but has taken no measures to enforce the filling in of the lots referred to in these resolutions, and that the Commissioner of Public Works has no appropriation to do this work; and also (in substance) that a doubt exists whether, if the Common Council should order the work in question to be done, a legal and valid assessment on the property benefited can be laid; and then requests my opinion whether any resolution or ordinance passed by your Board, in conformity with the recommendations contained in said communications, would, under the existing laws upon the subject, be valid; and also whether the Commissioner of Public Works would at present be authorized, under such a resolution or ordinance, to incur any expense whatsoever, there being no appropriation from which the same can now be paid.

The powers of the Common Council in reference to ordering the filling up of sunken lands in the City of New York are derived from sections 267, 269, 270, and 271 of the act of April 9, 1813, and from the second section of the act of February 21, 1824. Under these laws the Common Council is authorized to pass such ordinances as it shall, from time to time, deem necessary and proper for the filling up and regulating of any ground within the City of New York that may be sunken, damp, or unwholesome, or which the Common Council may deem proper to fill up or regulate. These laws also provide that the expense of such filling and regulating shall be borne by the owners of the lots so filled up or regulated, and they also authorize the city to do such work at its own expense in the first instance.

Under existing laws such expense must be met by the issue of assessment bonds, but is made a lien upon the lots benefited, and is to be collected from the owners of such lots in the same manner in which other assessments for local improvements are now collected.

The laws above referred to, of 1813 and 1824, are, so far as I am aware, in full force, and I see no reason to doubt that the Common Council has power to pass ordinances for the filling of the sunken lands in question, and that a valid assessment for the expense of such filling can be laid upon the lots benefited.

I would, however, respectfully suggest that in order to avoid objections which might possibly be made to the proposed resolutions and ordinances, the same be changed so as to direct and require the owner or owners of said lots to fill in the same. After such a provision in reference to the owner or owners, each resolution or ordinance should then be drawn in the usual manner, reciting that the city deems it necessary for the more speedy execution of the work to do it at its own expense, and, if the Common Council see fit, directing that the work be done by the Commissioner of Public Works in such manner as he deems most beneficial for the interests of the city.

I would also respectfully suggest that the resolutions and ordinances ought to provide with greater precision and definiteness as to what amount of filling is to be done thereunder.

The resolution transmitted to me is herewith returned.

I am, gentlemen,
Yours respectfully,

E. DELAFIELD SMITH,
Counsel to the Corporation.

On July 14, the following communication was sent by the Mayor to the Common Council:

PROCEEDINGS OF THE BOARD OF ALDERMEN.

* * * * *

The President laid before the Board the following message from his Honor the Mayor:

EXECUTIVE DEPARTMENT—CITY HALL,
NEW YORK, July 14, 1875.

To the Honorable the Common Council:

GENTLEMEN—I herewith transmit for your information and attention a communication received by me on the 7th instant from the Commissioner of Public Works, and which, by an oversight on my part, was not forwarded to you last week, as it should have been.

WM. H. WICKHAM, *Mayor.*

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE, ROOM 19, CITY HALL,
NEW YORK, July 7, 1875.

Hon. WILLIAM H. WICKHAM,
Mayor of the City of New York:

SIR—I beg leave to call your attention to the orders of the Board of Health, directing the Department of Public Works to drain certain lands, as follows:

1. Between One Hundred and Sixth and One Hundred and Eighth streets, Third avenue and Harlem river.

2. Between Ninety sixth and One Hundred and Sixth streets, Fourth and Fifth avenues.

3. Between One Hundred and Sixth and One Hundred and Ninth streets, Third and Fifth avenues.

4. Between One Hundred and Third and One Hundred and Fourth streets, Third and Fourth avenues.

For which plans and specifications have been prepared, and the work advertised to be let by contract on the 19th inst.

Preliminary to the execution of the work of draining, a large amount of earth-filling will be required, which is not specially called for in these orders; and the resolutions now before the Board of Aldermen, published in the *City Record* of June 18, ult., should be passed, so as to give this Department the authority to carry out the intention of the Board of Health for the relief of the Harlem Flats.

The work is not to be paid out of a special appropriation, but out of the proceeds of assessment fund bonds, the issue of which is not limited to any particular amount, and for which the city will be reimbursed by assessment upon the property benefited. The cost of the work will be determined by the bids received therefor, and, if authorized, will be kept as low as possible.

Very respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

By reference to the *City Record*, it will be seen that on July 22, August 12, and September 6, 1875, these resolutions were the subject of discussion in the Board of Aldermen, and that they were invariably laid over. In the meantime the Department of Public Works advertised for bids, and on July 19 the bids were opened, as will be seen by the following communication by the Commissioner:

DEPARTMENT OF PUBLIC WORKS
COMMISSIONER'S OFFICE, ROOM 19, CITY HALL,
NEW YORK, July 19, 1875.

Professor CHARLES F. CHANDLER,
President Board of Health:

DEAR SIR—The following are the lowest bids received at the public opening, this morning, but not yet awarded:

No. 1. Draining lands situated between One Hundred and Sixth and One Hundred and Ninth streets, Third avenue and Harlem river—John C. Dowling.

Drains 15 cents per foot. Filling 26 cents per cubic yard.

No. 2. Draining lands situated between Ninety-sixth and One Hundred and Sixth streets and Fourth and Fifth avenues—William Everhard.

Drains 85 cents per foot. Filling 24 cents per cubic yard.

No. 3. Draining lands situated between One Hundred and Sixth and One Hundred and Ninth streets and Third and Fifth avenues—John C. Dowling.

Drains 30 cents per foot. Filling 53 cents per cubic Yard.

No. 4. Draining lands situated between One Hundred and Third and One Hundred and Fourth streets and Third and Fourth avenues—John C. Dowling.

Drains 10 cents per foot. Filling 35 cents per cubic yard.

Very truly yours,

FITZ JOHN PORTER,
Commissioner.

Please see me to-morrow (20th), if possible, before 4 P. M. Will be at office all day. The above ought to be satisfactory.

The further action of the Department of Public Works is seen in the following communication by the Commissioner to the Board of Aldermen of August 25, 1875:

PROCEEDINGS OF THE BOARD OF ALDERMEN.

* * * * *

The President laid before the Board the following communication from the Department of Public Works:

(SPECIAL ORDER NO. 5.)

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE, ROOM 19, CITY HALL,
NEW YORK, August 25, 1875.

To the Honorable the Board of Aldermen:

GENTLEMEN—On June 21st ult., I reported to your Honorable Board, in reply to your resolution of June 17, the action taken by this Department to secure the filling in and draining of the Harlem Flats.

One of the steps taken by me was to recommend to you, through his Honor the Mayor, the adoption of ordinances authorizing this Department to fill in these lands by day's work, believing that to be the most expeditious mode of executing the work, and affording the best opportunity for the use of none but clean, healthy material, while under a former contract for similar work in that section many complaints had been made as to the quality of the material used.

Meantime the Board of Health adopted resolutions, directing this Department to do the necessary work to drain these lands, under authority of chapter 566 of the Laws of 1871.

From the proceedings of your Honorable Board it appeared very uncertain whether the ordinances before you would receive the requisite number of votes, and, recognizing the necessity of prompt action, I came to the conclusion to proceed under the authority of the Law of 1871 and the resolutions of the Board of Health, and advertised for proposals for constructing drains, and for the necessary filling in connection therewith. These proposals were opened on the 19th of July, and on the 22d of July, I transmitted to the Comptroller the lowest bids, for his approval of the sureties thereon.

I submit herewith copies of correspondence between the Comptroller and myself on this subject, showing why no work has yet been done under the proposals accepted.

If you adopt the ordinances now before you, I will be able to have such filling put in as is necessary to render the district perfectly healthy, in addition to that required for the drains, on the basis of the proposals received and accepted, and the work can be prosecuted simultaneously with the construction of the drains.

Very respectfully, FITZ JOHN PORTER,
Commissioner of Public Works.

City of New York—Department of Finance,
Comptroller's Office, August 19, 1875.

Department of Public Works:

I herewith return to the Department of Public Works the following proposals for drainage of certain lands received from your Department July 22, 1875, without my approval of the sureties thereto, viz. :

William Everard—For drains between Ninety-sixth and One Hundred and Sixth streets, and Fourth and Fifth avenues.

John C. Dowling—For drains between One Hundred and Sixth and One Hundred and Ninth streets, and between Third avenue and Harlem river; between One Hundred and Sixth and One Hundred and Ninth streets, and between Third and Fifth avenues; between One Hundred and Third and One Hundred and Fourth streets, and between Third and Fourth avenues.

I also inclose herewith a copy of the communication from the Counsel to the Corporation, dated August 12, 1875, relative to the authority for the work of earth-filling to be performed under the specifications and contracts for these works, from which communication it will be seen that he is of the opinion that "an assessment cannot be laid for the filling of the lots unless such filling is first authorized by ordinance of the Common Council."

No ordinance having been passed for any of these works, as I am informed, the whole cost would fall upon the treasury, and I am compelled to return the several proposals without my approval of the sureties.

Very respectfully, ANDREW H. GREEN,
Comptroller.

DEPARTMENT OF PUBLIC WORKS,
COMMISSIONER'S OFFICE, ROOM 19, CITY HALL,
NEW YORK, August 24, 1875.

Hon. ANDREW H. GREEN, *Comptroller:*

SIR—I am in receipt of yours of the 19th inst., returning, without your approval of the sureties, the several proposals for underground drains transmitted to you on the 22d ult., and inclosing a copy of an opinion of the Counsel to the Corporation, upon which you base your action, to the effect that under the authority of chapter 566, Laws of 1871, no earth-filling could be done.

From the opinion of the Counsel to the Corporation it appears that he is under the impression that this Department, under the resolution of the Board of Health, and the authority of the Law of 1871, intended to contract for filling other than is required in connection with the drainage of the lands in question, and that authority to do such filling was sought from the Common Council, since the authority given to the Board of Health and to this Department by the law was not sufficient to cover it.

This impression he seems to have obtained from your letter to him, asking for his opinion.

The facts are entirely different—

First—In order to carry out the provisions and intentions of chapter 566 of the Law of 1871, and the orders of the Board of Health, for the drainage of these lands, it is necessary to put in very large quantities of filling. This has been the case in every instance heretofore, when low lands have been drained under the same authority, and the Counsel to the Corporation, under date of November 21, 1873, advised you that authority to do such filling was clear, and that assessments therefor would legally be levied and collected. No more filling is intended to be done under the present proposals than is necessary to lay the drains on proper grade, the quantities can only be approximately estimated, and for that reason, the Commissioner of Public Works reserves the right to increase or diminish the quantities as he may deem necessary.

Second—The Department recommended to the Common Council the adoption of ordinances to fill in these lands by day's work, not for want of other authority to do the work by contract, but because many complaints have been made as to the quality of filling put in under a previous contract, and the Department could have more immediate and complete supervision over the quality of the material if the work was done by day's labor, and could avail itself of offers of clean earth from property-owners, free of charge.

Will you please inform me whether, upon consideration of these facts, you still withhold your approval of the sureties on these proposals for the reasons stated in your letter of the 19th instant.

Very respectfully,

FITZ JOHN PORTER,
Commissioner of Public Works.

While the paper was being read, Alderman ——— moved that the further reading be suspended, and the paper be laid over and printed in the minutes, and made a special order for the next meeting of the Board.

Alderman Seery moved that the subject be laid over in connection with General Order No. —, and made the special order for next Saturday.

In the latter part of June a fresh series of orders on private parties was issued by the Board of Health, directing the proper filling and grading of various lots in the "Harlem Flats" district, chiefly east and west of Third avenue, north of One Hundred and Sixth street. In most cases these orders were complied with to the entire satisfaction of the Board. Towards the latter part of the month of June, when it became apparent to this Board that the efforts of the Department of Public Works for the relief of this district would not be successful, for causes which appear in the documents already presented, it was resolved to proceed to extreme measures and to take advantage of the section of the health laws which authorizes the Board of Health to execute its own orders when other measures fail. Accordingly on June 29, 1875, the following preamble and resolutions were adopted, requesting the transfer of $50,000 by the Board of Estimate and Apportionment for this purpose.

RESOLUTIONS ADOPTED BY THE BOARD OF HEALTH, JUNE 29, 1875.

Whereas, The Sanitary Superintendent and City Sanitary Inspector has certified, under and pursuant to the provisions of chapter 566 of the Laws of 1871, and of chapter 549 of the Laws of 1875, amendatory thereof, that it is necessary for the protection of the public health that the parts and parcels of land within the corporate limits of the City and County of New York hereinafter described need to be drained by other means than by sewers; it is hereby

Ordered, That the said certificates be filed among the records of the Board of Health of the Health Department of the City of New York, and that duplicates thereof, duly signed by the said Sanitary Superintendent and City Sanitary Inspector, be forwarded to the Department of Public Works of said city; and it is further

Ordered and directed, pursuant to the provisions of the acts hereinbefore recited, that the following named parts and parcels of land within the corporate limits of the City and County of New York shall be drained by other means than by sewers, by and under the direction of the Department of Public Works of said city and county, said parts and parcels of land being situate as follows: Bounded on the north by One Hundred and Ninth street; on the east by Third avenue; on the south by One Hundred and Fifth street, and on the west by Fifth avenue.

Whereas, The Sanitary Superintendent and City Sanitary Inspector has certified under and pursuant to the provisions of chapter 556 of the Laws of 1871, and of chapter 549 of the Laws of 1875, amendatory thereof, that it is necessary for the protection of the public health, that the parts and parcels of land within the corporate limits of the City and County of New York, hereinafter described, need be drained by other means than by sewers; it is hereby

Ordered, That the said certificates be filed among the records of the Board of Health of the Health Department of the City of New York, and that duplicates thereof, duly signed by the said Sanitary Superintendent and City Sanitary Inspector, be forwarded to the Department of Public Works of said city; and it is further

Ordered and directed, pursuant to the provisions of the acts hereinafter recited, that the following named parts and parcels of land within the corporate limits of the City and County of New York, shall be drained by other means than by sewers, by and under the direction of the Department of Public Works of said city and county. Said parts and parcels of land being situate as follows, viz.: Bounded on the north by One Hundred and Eighth street; on the east by Harlem river; on the south by One Hundred and Sixth street; and on the west by Third avenue.

Whereas, The Sanitary Superintendent and City Sanitary Inspector has certified, under and pursuant to the provisions of chapter 566 of the Laws of 1875, and of chapter 549 of the Laws of 1875, amendatory thereof, that it is necessary for the protection of the public health that the parts and parcels of land within the corporate limits of the City and County of New York, hereinafter described, need be drained by other means than by sewers; it is hereby

Ordered, That the said certificates be filed among the records of the Board of Health of the Health Department of the City of New York, and that duplicates thereof, duly signed by the said Sanitary Superintendent and City Sanitary Inspector, be forwarded to the Department of Public Works of the city; and it is further

Ordered and directed, pursuant to the provisions of the acts hereinbefore recited, that the following named parts and parcels of land within the corporate limits of the City and County of New York shall be drained by other means than by sewers, by and under the direction of the Department of Public Works of said city and county. Said parts and parcels of land being situate as follows, viz.: Bounded by the southerly line of One Hundred and Fifty-first street and the northerly line of One Hundred and Forty-eighth street, and on or near the line of One Hundred and Forty-ninth street, west of Eleventh avenue; on the east by Tenth avenue, and on the west by Eleventh avenue.

Whereas, The Sanitary Superintendent and City Sanitary Inspector has certified, under and pursuant to the provisions of chapter 566 of the Laws of 1871, and of chapter 540 of the Laws of 1875, amendatory thereof, that it is necessary for the protection of the public health that the parts and parcels of land within the corporate limits of the City and County of New York, hereinafter described, need be drained by other means than by sewers; it is hereby

Ordered, That the said certificates be filed among the records of the Board of Health of the Health Department of the City of New York, and that duplicates thereof, duly signed by the said Sanitary Superintendent and City Sanitary Inspector, be forwarded to the Department of Public Works of said city; and it is further

Ordered and directed, pursuant to the provisions of the acts hereinbefore recited, that the following named parts and parcels of land within the corporate limits of the City and County of New York shall be drained by other means than by sewers, by and under the direction of the Department of Public Works of said city and county, said parts and parcels of land being situate as follows, viz.: Bounded on the north by One Hundred and Fifth street; on the east by Fourth avenue; on the south by Ninety-sixth street, and on the west by Fifth avenue.

Whereas, The Sanitary Superintendent and City Sanitary Inspector has certified, under and pursuant to the provisions of chapter 566 of the Laws of 1871, and of chapter 549 of the Laws of 1875, amendatory thereof, that it is necessary for the protection of the public health that the parts and parcels of land within the corporate limits of the City and County of New York, hereinafter described, need be drained by other means than by sewers; it is hereby

Ordered, That the said certificates be filed among the records of the Board of Health of the Health Department of the City of New York, and that duplicates thereof, duly signed by the said Sanitary Superintendent and City Sanitary Inspector, be forwarded to the Department of Public Works of said city; and it is further

Ordered and directed, pursuant to the provisions of the acts hereinbefore recited, that the following named parts and parcels of land within the corporate limits of the City and County of New York shall be drained by other means than by sewers, by and under the direction of the Department of Public Works of said city and county, said parts and parcels of land being situate as follows, viz.: Bounded on the north by One Hundred and Fourth street; on the east by Third avenue; on the south by One Hundred and Third street, and on the west by Fourth avenue.

That sufficient proof is in the reports now on file relative to the dangerous condition and state of the "Harlem Flats," the district between Ninety-first and One Hundred and Ninth streets, that the places and grounds hereinafter described are public nuisances, and each of them is such, dangerous to life and health, and the said places and grounds are hereby entered on the records of this Board, and are declared public nuisances, dangerous to life and health, viz.: The property north side of One Hundred and Seventh street, between Fourth and Lexington avenues; north side of One Hundred and Seventh street, between Lexington and Third avenues; the ground between Third and Second avenues, One Hundred and Sixth and One Hundred and Seventh streets; on south side of One Hundred and Eighth street, between Third and Second avenues; on north side of One Hundred and Seventh street, between Second and First avenues; on south side of One Hundred and Eighth street, between Second and First avenues; on north side of One Hundred and Eighth street, between Second and First avenues; the block between One Hundred and Seventh and One Hundred and Eighth streets, Fourth and Madison avenues; also the blocks of land between Third and Second avenues, Ninety-third and One Hundred and Second streets, and between Second avenue and East river, Ninety-second and One Hundred and Fourth streets, partially filled under the contract with Messrs. Jones & McQuade, but left in a dangerous and unsatisfactory state; and Lexington avenue, between One Hundred and Third and One Hundred and Fourth streets; One Hundred and Sixth street, between Fourth and Madison avenues; One Hundred and Seventh street, between Fourth and Lexington avenues; Lexington avenue, between One Hundred and Sixth and One Hundred and Eighth streets; One Hundred and Seventh street, between Third and Second avenues; One Hundred and Seventh street, between First and Second avenues.

That, in respect to said places and grounds, this Board does hereby make and enter the following order, to wit:

That the said places and grounds be covered with fresh earth to a height of not less than two feet above high-water mark, and that the surface thereof be graded so that no water shall remain or stand thereon.

That the public health requires that the foregoing order upon the places and grounds following, viz.:

Lexington avenue, between One Hundred and Third and One Hundred and Fourth streets;

One Hundred and Sixth street, between Fourth and Madison avenues;

One Hundred and Seventh street, between Fourth and Lexington avenues;

Lexington avenue, between One Hundred and Sixth and One Hundred and Eighth streets;

One Hundred and Seventh street, between Second and Third avenues;

One Hundred and Seventh street, between Second and First avenues;

—should be executed through the officers of this Board, and by the persons and means to be by this Board engaged.

That the Board of Estimate and Apportionment be respectfully requested to apportion and appropriate the sum of $50,000 for the expenses of the work under the above resolution.

In response to this application the Board of Estimate and Apportionment transferred the sum of $21,067.43 from the unexpended balances of health funds for the years 1872 and 1873. The President and the Chairman of the Sanitary Committee were at once authorized to contract for the performance of the work. A contract was made with John D. Crimmins and Thomas E. Crimmins for that portion of the work on One Hundred and Seventh street, between Fourth and Lexington avenues, and One Hundred and Sixth street, beween Fourth and Madison avenues, and the work was begun.

On July 22d the following letter was received from the contractors, expressing a doubt as to their payment for the work when completed:

Professor C. F. CHANDLER,
President Board of Health:

DEAR SIR—We are progressing rapidly with the filling at One Hundred and Sixth and One Hundred and Seventh streets.

From what I can learn at Finance Department, the moneys for the payment of the work will not be forthcoming as rapidly as the work is completed.

The Board means, no doubt, that we should be paid promptly. As there is an intervening agency between their intention and our payment we have not discounted litigation or delay. I would suggest that the Board of Health would address a letter to the Comptroller, stating a contract has been made for the filling, etc., and if there is any obstacle in the way of the prompt payment of the same when complete.

I address you this letter, having been well impressed that such action is necessary for our protection.

Very respectfully, yours,

JOHN D. CRIMMINS.

The Health Commissioners immediately communicated with the Comptroller on the subject, but receiving no definite response to their inquiries, addressed to him, on July 30th, the following communication:

HEALTH DEPARTMENT, July 30, 1875.

Hon. ANDREW H. GREEN,
Comptroller, etc.:

SIR—We are anxiously awaiting for a word from you with regard to our work on Harlem Flats. If we can assure the parties who are to do the work that you will promptly pay the bills, without raising any question as to

First—The right of the Board of Estimate and Apportionment to transfer the balances of 1872 and 1873, as it did to the amount of $21,000;

Second—As to the right of the Board of Health, under the health laws, to execute its own orders on Harlem Flats;

Third—As to our right to do the work without advertising for bids, by our own officers and such means as they require to aid them; that is, the contractors' carts, etc;

the work can be promptly and economically completed, to the great benefit of the public health.

Please give us an immediate reply, and oblige,

Yours, truly,
C. F. CHANDLER,
President.

Receiving no response, the following resolutions were adopted August 3d:

Whereas, This Board has declared the district known as the Harlem Flats to be in a condition dangerous to the public health, and has ordered the same to be properly drained and filled, and orders to such effect have been duly entered by this Board; and

Whereas, The Board of Estimate and Apportionment has transferred the sum of $21,067.43 from the unexpended balances of this Department for the years 1872 and 1873 for this purpose; and

Whereas, This Board has employed suitable agents to execute the said orders and perform the necessary work under its directions; and

Whereas, Questions have arisen as to the legality of this action, by which the execution of the work is seriously retarded; therefore

Resolved, That the Corporation Counsel be and hereby is respectfully requested to inform this Board, at his earliest convenience—

First—Whether the Board of Estimate and Apportionment did legally transfer the necessary funds.

Second—Whether the Board of Health is empowered to execute its own orders in such behalf under the several acts conferring power upon said Board, and especially under section 7 of chapter 636 of the Laws of 1874.

Third—Whether in so doing, the Board of Health is authorized to do the work in such manner as it may deem the best adapted to abate all nuisance and protect the public health.

In reply to which, the following opinion was received from William C. Whitney, Esq., Counsel to the Corporation:

LAW DEPARTMENT,
OFFICE OF COUNSEL TO THE CORPORATION,
NEW YORK, August 12, 1875.

Colonel EMMONS CLARK,
Secretary of the Health Department:

SIR—Your letter to my predecessor, of the 4th inst., contains the following preamble and resolution, adopted by the Board of Health August 3, 1875:

Whereas, This Board has declared the district known as the "Harlem Flats" to be in a condition dangerous to the public health, and has ordered the same to be properly drained and filled, and orders to such effect have been duly entered by this Board; and

Whereas, The Board of Estimate and Apportionment has transferred the sum of $21,067,43 from the unexpended balances of this Department, for the years 1872 and 1873, for this purpose; and

Whereas, This Board has employed suitable agents to execute the said orders and perform the necessary work, under its direction; and

Whereas, Questions have arisen as to the legality of this action by which the execution of the work is seriously retarded; therefore

Resolved, That the Corporation Counsel be, and hereby is, respectfully requested to inform this Board, at his earliest convenience:

1st. Whether the Board of Estimate and Apportionment did legally transfer the necessary funds.

2d. Whether the Board of Health is empowered to execute its own orders in such behalf, under the several acts conferring power upon said Board, and especially under section 7, of chapter 636, of the Laws of 1874.

3d. Whether, in so doing, the Board of Health is authorized to do the work in such manner as it may deem the best adapted to abate all nuisances and protect the public health.

Under section 81 of the Charter of 1873, and section 5, of chapter 636, of the Laws of 1874, the Board of Health is authorized to appoint its own attorney and counsel, and it is not, therefore, the official duty of the Counsel to the Corporation to advise the Board of Health upon questions of law. As the subject matter of your communication relates, however, to the public health, and comes from a co-ordinate department of the city government, I reply thereto, as a matter of courtesy:

1st. The question whether the transfer of $21,067.43, by the Board of Estimate and Apportionment were legally made depends upon facts which cannot be readily or conveniently ascertained except through the Finance Department. It appears by the records of this office that after the receipt of your letter my predecessor addressed a communication to the Comptroller requesting information in regard to such facts, but that no reply has yet been received to that letter.

Section 2, of chapter 308, of the Laws of 1874, provides that the Board of Estimate and Apportionment shall have the power at any time to transfer any appropriation for any year which may be found by the head of the department for which such appropriation shall have been made to be in excess of the amount required or deemed to be necessary for the purposes or objects thereof to such other purposes or objects for which the appropriations are insufficient, or such as may require the same.

If, therefore, there remains an unexpended balance of the appropriation for the Health Department for the years 1872 and 1873 amounting to $21,067.43, and there are no valid outstanding claims against such balance, the Board of Estimate and Apportionment, under the law above cited, has undoubtedly authority to transfer such amount for the purpose of draining and filling the district known as the Harlem Flats. Whether such a balance exists and whether there are any such claims against it, cannot, as above stated, be readily ascertained except from the books of the Finance Department.

2d. I have no doubt that under the several acts conferring powers upon the Board of Health, the Board is empowered to execute its own orders in reference to the draining and filling of the Harlem Flats.

3d. I think that in so executing such orders the Board of Health is authorized to do the work in such manner as it may deem best adapted to abate all nuisances and protect the public health. I am, sir,

Yours respectfully,

W. C. WHITNEY,
Counsel to the Corporation.

No reply having been received from the Comptroller to the communication of July 30, the following resolutions were adopted on August 17th:

Whereas, The weekly statements of the Comptroller, the last of which is dated August 14, do not contain the amount of $21,067.43, transferred from the balances of 1872 and 1873 by the Board of Estimate and Apportionment for the relief of the Harlem Flats; and

Whereas, The work of improving this district cannot be executed by this Board until the Comptroller recognizes the appropriation; therefore

Resolved, That the attention of the Comptroller be again called to this matter, and that he be requested to place to the credit of this Board the above-mentioned sum.

Resolved, That a new copy of the letter of the President on this subject, which was sent to him July 30, and a copy of the opinion of the Corporation Counsel on this subject, be forwarded with the previous resolution.

It having been intimated to the Board of Health that the funds to pay for the work already begun, but discontinued by the contractor, would be provided, the President and Chairman of the Sanitary Committee were authorized on September 7, to make a new contract with John D. and Thomas E. Crimmins, for the filling of One Hundred and Sixth street, between Madison and Fourth avenues, for the sum of $2,750, by the following resolution :

Resolved, That the President and the Chairman of the Sanitary Committee be authorized to contract with John D. Crimmins to fill One Hundred and Sixth street, between Madison and Fourth avenues, in a manner that will be satisfactory to this Board, and to agree to pay for said work the sum of $2,750, said work to be completed on or before the 1st day of October, 1875.

The contract was executed, the work was satisfactorily performed, and the bill rendered for the amount specified.

On October 19th the following communication was received from the Comptroller, with regard to the payment of this bill :

City of New York—Department of Finance,
Comptroller's Office,
October 18, 1875.

Professor Charles F. Chandler,
President Board of Health :

Sir—It will be necessary, in order to provide the funds to pay the bill of Thomas E. Crimmins, amounting to $2,750, for filling in One Hundred and Sixth street, between Fourth and Madison avenues, received from your department on the 7th inst., to transfer the amount from some fund having a balance of appropriation available.

I inclose a resolution authorizing the amount to be taken from the "Health Fund" for 1875, which, if adopted by the Board of Health, would provide the requisite means. The Board of Estimate and apportionment meet at 2 o'clock to-morrow, and will undoubtedly authorize the transfer upon the adoption of the resolutions by your Board.

Very respectfully,
ANDREW H. GREEN,
Comptroller.

Resolved, That the Board of Estimate and Apportionment be authorized to transfer the sum of two thousand seven hundred and fifty dollars from the appropriation "Health Fund," 1875, the same being in excess of the amount required or deemed to be necessary for the objects and purposes thereof, to the appropriation "Health Fund—Filling in Harlem Flats," for 1875, for which the same is required.

In response to this the following resolution was adopted, November 3d, by the Board :

Resolved, That the President be requested to acknowledge the letter of the Comptroller, of the 18th October, covering a resolution proposed, asking the transfer of a sum of money from the appropriation "Health Fund, 1875," to the appropriation "Health Fund—Filling in Harlem Flats;" that the attention of the Comptroller be respectfully called to the previous communication of this Board upon the subject of the appropriation "Health Fund—Filling in Harlem Flats," and he be informed that there is at present no excess of Health Fund of 1875, beyond what is required or deemed necessary for the object and purpose thereof.

The payment of this bill was afterwards provided for by a transfer from the appropriation of the Fire Department, as the following extract from the minutes of the Board of Estimate and Apportionment shows.

The Comptroller presented the following consent to transfer, in place of the one laid over at meeting of October 27, 1875.

HEADQUARTERS FIRE DEPARTMENT—CITY OF NEW YORK,
127 and 129 MERCER STREET,
NEW YORK, November 8, 1875.

To the Honorable the Board of Estimate and Apportionment:

GENTLEMEN—I have the honor to inform you that the following resolution was adopted by this Board, at a meeting held this day:

Resolved, That the resolution adopted by this Board on the 3d day of November, 1875, consenting to the transfer of two thousand seven hundred and fifty dollars from the unexpended appropriation of the Fire Department for 1874, be amended by striking out the following words, to wit: "To the appropriation for 'Health Fund—Filling in Harlem Flats, 1875,' for which it is required."

Very respectfully,

JOSEPH L. PERLEY, *President.*

—and offered for adoption the following resolution:

Resolved, That the sum of twenty-seven hundred and fifty dollars ($2,750) be and the same is hereby transferred from the appropriation for "Fire Department Fund," 1874, the same being in excess of the amount required for the purposes and objects thereof, to the appropriation for "Health Fund—Filling in Harlem Flats," 1875, for which it is required.

The Chairman put the question whether the Board would agree with said resolution.

Which was decided in the affirmative by the following vote:

AFFIRMATIVE—The Mayor of the City of New York (Chairman), the Comptroller of the City of New York, and the President of the Department of Taxes and Assessments—3.

Notwithstanding all the obstacles which were met by the Board of Health in its efforts to reclaim the Harlem Flats, many of which were insurmountable under existing laws, much good was accomplished, and at the close of 1875, though much remains to be done, this region is in a decidedly better condition than it was twelve months ago.

The Driving of Cattle and Sheep through the streets and avenues of the city has always been a subject of complaint from citizens and of anxiety to this Board. From time to time restrictions as to routes and hours for driving have been made, as severe as was compatible with the business of slaughtering within the city limits. Under the pressure exerted by this Board, arrangements are in progress for the transportation of cattle by water from the stock yard at Sixtieth street on the North river, to the various slaughter-houses on both sides of the city, and all that appears necessary to complete them is the construction of the new dock at the stock yard.

Slaughtering.—The number of the slaughter-houses in the City of New York was reported to be forty-nine, of which number forty-two were used in the slaughtering of cattle and sheep, and seven for the slaughtering of hogs. They are located near the North river, above and near Fortieth street, and near the East river, between Forty-fourth and Forty-eighth streets. They are frequently inspected by officers of this Board, a weekly report in detail is made upon the condition of each, and any defects in drainage or want of cleanliness are ordered to be corrected. But the business of slaughtering is not conducted in this city in such a manner as to be free from sanitary objections. In the opinion of this Board, this business should be conducted in very large establishments, in which the animals can be yarded and slaughtered, and the fat, blood, offal, and all parts of the animal, can be utilized while fresh and inoffensive. Large abattoirs in other cities have proved that with proper care, capital, buildings, and appliances, the slaughtering of animals, the melting of fat, and the utilization of the blood, offal, bones, etc., etc., can all be conducted without inviting the interference of the health authorities.

On the 27th day of June, 1873, the Board met the principal parties engaged in hog-slaughtering, and considered the practical methods of securing a thorough sanitary reform in the business, and subsequently received from them, in writing, their views upon the subject. The Sanitary Committee gave the matter a careful consideration, and on the 22d of July reported to the Board its conclusions: That the business should be entirely suppressed within the city limits, or that it should be concentrated or conducted in large abattoirs. It is confidently believed that the latter alternative will be accepted by the parties interested in the business. The Board also gave a public hearing, on the 30th day of March, 1874, to all parties engaged in the business of slaughtering animals, upon a proposition "to prohibit the slaughtering of cattle, sheep, hogs, and calves, at any place in the City of New York south of One Hundred and Tenth street, except in abattoirs or buildings, of a plan approved by the Board of Health, and of a capacity sufficient to accommodate the entire business of slaughtering in said city, and to admit of the yarding of the animals, and the use and disposition of all parts of the animals slaughtered, so as effectually to prevent all miasmatic or offensive odors therefrom, and to secure the wholesomeness of the meat as human food."

Soon after this discussion the Union Stock Yard and Market Company presented plans for an extensive abattoir for the slaughtering of cattle, small stock, and hogs, and the utilization of their fat, blood, and offal at Fifty-ninth street, on the North river. Plans were also submitted for the conversion of a portion of the Manhattan Market, at Thirty-fourth street, on the North river, into an extensive abattoir for the slaughtering of cattle; with slight modifications, these plans met the entire approval of the Board. The necessary alterations in the Manhattan Market were speedily made and the business of slaughtering was soon inaugurated there. The fat is rendered and the blood and offal dried without the production of any offensive emanations. Against the erection of the abattoir at the foot of West Fifty-ninth street unexpected opposition arose on the part of the Trustees of the Roosevelt Hospital, of St. Paul's Church, of the West Side Property Owners' Association, and many prominent citizens; and against the proposed restriction of slaughtering to a few large abattoirs, from the owners of the various slaughter-houses. Several hearings were granted to these parties, and after a careful investigation, the Board approved (October 13, 1874) the elaborate report of the Sanitary Committee, which will be found in the Appendix, and adopted the following ordinance:

SEC. 184. That on and after the fourth day of July, 1876, the business of slaughtering animals in the City of New York shall not be conducted south of One Hundred and Tenth street, unless the same shall be done in buildings located directly upon the water front, each having a capacity sufficient for the yarding and slaughtering daily of one-half of the entire number of cattle, or hogs, or small stock (all or separately, according to the particular object of each abattoir) slaughtered in this city at the time this ordinance shall go into effect, and so constructed as to receive all stock deliverable thereat directly from cars or transports; and to discharge therefrom all liquid refuse below low water-mark; and to secure the proper care and disposition of all parts of the slaughtered animals upon the premises, or the immediate removal thereof by means of boats; and on and after the fourth day of July, 1876, no cattle, sheep, hogs, or calves, shall be driven in the streets of such city below One Hundred and Tenth street; nor shall any offensive business growing out of that of slaughtering, as fat-melting, hide-curing, gut-cleaning, bone-boiling, glue-making, etc., etc., be conducted, except on the premises constructed and prepared as herein required, and devoted to the slaughtering and the disposing thereof of all parts of the slaughtered animals as aforesaid; nor shall any fat, hides, hoofs, or entrails, or other refuse parts of slaughtered animals (except fat or tallow attached to meat exposed for sale, or collected by licensed dealers) be transported in said streets; nor shall any building be erected, or converted into, or used as a slaughter-house until the plans thereof have been duly submitted to the Board of Health, and approved in writing by the said Board.

This action of the Board having failed to give satisfaction to the citizens opposed to the erection of an abattoir at the foot of West Fifty-ninth street, and to the owners of the existing slaughter-houses, they appealed to the Board of Aldermen, by whom the following resolutions were adopted:

Resolved, That the Board of Health of the City of New York be and is hereby requested and, so far as the Common Council has the power, directed not to grant any permit to the Union Stock Yard and Market Company, or any other company, corporation, or individual, for the erection or establishment of an abattoir at or near the foot of Fifty-ninth street, North river.

Adopted by the Board of Aldermen, April 15, 1875.

Approved by the Mayor, April 20, 1875.

As the action of the Aldermen was not controlling upon the Board of Health, the matter was carried to the Legislature, where several bills were introduced; one intended to prevent the erection of any abattoirs, another to limit slaughtering to the existing slaughter-houses, and a third, to banish slaughtering altogether. None of these bills were passed, the Legislature preferring to leave this question to the Board of Health. This long controversy so discouraged the Union Stock Yard and Market Company, that its Directors decided not to invest the large capital necessary in the construction of an abattoir. Thus, while the efforts of the Board in this direction have failed to accomplish all that was desired, it has the satisfaction to have demonstrated the fact that the business of slaughtering, fat-melting and utilizing the blood and offal of animals can be conducted in a well-appointed abattoir in an entirely inoffensive manner.

Fat Melting.—The active efforts of this Board during the year 1873 secured such reforms in the processes of rendering tallow that few complaints have been received during the period covered by this report; in a few cases it has been necessary to insist on further improvements in the apparatus. The business is conducted in a few large establishments. Lard is rendered on a smaller scale in nearly all of the packing houses and pork shops in the city. This article, to be merchantable, must be free from taint or sourness, and for this reason the process of melting is not liable to be offensive. In all cases the use of proper apparatus is required.

Utilizing Blood and Offal.—By the introduction of new and improved apparatus it has been found that, with reasonable care, fresh blood, offal, and rendering scrap can be dried, and thus converted into a valuable fertilizer without the liberation of offensive odors. This fact was demonstrated under temporary permits granted for the purpose of experiment, and the business has since been allowed to continue under the observation of the District Inspectors.

Stable Manure.—The removal of stable manure and straw from the stables and beyond the city limits has proved to be one of the most embarrassing problems presented to this Board. There are believed to be about 8,000 stables, large and small, containing about 50,000 horses, and producing more than a million loads of manure per annum. The value of this material is upwards of half a million of dollars. At certain seasons this can be readily sold to the farmers of Long Island and New Jersey, but at other seasons it is impossible to dispose of it at any price, either because the farmers do not care to take it, or because the transportation is interrupted by ice. The problem is further involved by the fact that the contractors for the removal of the manure from the large stables are bound by contracts, often having still several years to run, by which they are compelled to pay in some cases as high as $3.25 per horse, per annum. While it is not the province of this Board to adjust commercial questions, still it is not wise, by hasty and uncertain action, to precipitate upon the city a new evil, greater perhaps than the one to be remedied, viz.: the accumulation of manure in stables throughout the city. A project to compress and bail manure and stable straw, and thus bring it at once into an inoffensive condition, and by reducing the cost of handling and transportation, to open more distant markets, available during the entire year, is now being tested in the city, and this Board has reason to hope that thus a practical solution of the problem may be reached.

Offensive Trades.—The active measures of the Board, during the summer of 1873, resulted in the introduction of such improvements in various offensive trades, such as fat melting, the treatment of slaughter-house refuse, the manufacture of ammonia, etc., as to reduce their offensiveness to a minimum. There have, consequently, during the past two years, been very few complaints brought to the notice of the Board from these causes, the suggestions of the Board having been for the most part cheerfully complied with. The report of Inspector S. Anthony Goldschmidt, M. E., on the gas works of the city, and of Assistant Sanitary Superintendent E. H. Janes, M. D., on the vile odors in the eastern part of the city, which are printed in full in this report, present the details with regard to this subject.

Suburban Nuisances.—The atmosphere of the city has been at times insupportable by a peculiar odor which has been brought by easterly winds from Long Island City, and, perhaps, also from Brooklyn. This odor is caused by the *sludge acid* of the petroleum refineries, either while the acid is being used in the purification of the oil, or afterwards, when it has been sold to the manufacturers of fertilizer, who use the acid portion of it in making superphosphate of lime, and allow the oily portion to run into the river. Members of the Board met the Health Commissioners of Brooklyn and Long Island City in conference on this subject. They professed to be unaware of the existence of any cause of complaint, and, so far as known, no steps have as yet been taken to prevent or mitigate the evil by those Boards. This nuisance has continued unabated, and has been a just cause of frequent complaints from citizens. This Board has no power under existing health laws by which it can abate this nuisance, and must depend upon the action of the health boards of the localities where the nuisances originate, for relief, unless additional legislation shall supply a remedy.

Contagious Diseases.—The Board gains its knowledge of these, either from the reports of attending physicians, from certificates of death, or from messages sent by alarmed neighbors. These latter relate particularly to small-pox, which is more dreaded than any other disease. From this it results that most small-pox cases are reported to the Board; while, on the other hand, it is certain that a considerable proportion of the cases of measles and other contagious diseases never come to its knowledge. Yet, it is not only incumbent upon physicians by law, but also from a scientific point of view extremely desirable, that they should inform this Board of all cases. These facts must be borne in mind in examining the following table, and also in estimating the comparative occurrence of these diseases, and the ratio of deaths to cases reported.

From May 1, 1874, to December 31, 1875, there were 17,825 cases of contagious diseases reported to the Board, before death, of which there were, of

Typhus	99
Typhoid	996
Scarlet Fever	3,250
Cerebro-Spinal Meningitis	241
Measles	1,514
Diphtheria	7,077
Small-Pox	4,648
	17,825

These diseases have prevailed as follows during the years 1874 and 1875, from January to January:

YEAR.	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-Spinal Meningitis.	Measles.	Diphtheria.	Small-pox.
1874	48	488	3,051	138	1,407	3,684	1,462
1875	56	634	1,730	150	703	4,521	3,397

Inspection of Vessels.—With a view to prevent the introduction of contagious diseases from domestic and foreign ports, the Sanitary Code requires all masters or agents to exhibit to the Board of Health the voucher of the Health Officer of the port before unloading their cargoes. If the papers are in order the Sanitary Superintendent issues a permit to unload; 5,282 such permits were issued in 1874 and in 1875. In case of an epidemic, this will prove an important protection to the health of the city.

Infected Clothing, etc.—It has been occasionally suggested that contagious diseases were introduced in cargoes of rags, but careful investigation has thus far failed to reveal any cause of apprehension from this source. The rags are baled, and, without breaking the packages, are shipped at once to the paper factories in the Eastern States. Thus far this Board has not been able to trace any cases of contagious disease to this source.

Disinfection of Contagious Diseases.—It has been the intention of the Board to send a member of the Disinfecting Corps to every house in which a case of contagious disease is reported to exist. The unusual prevalence of small-pox during the time embraced in this report, and the limited means at the disposal of the Board for this purpose, compelled the limitation of disinfection to all cases of small-pox, and to such cases of diphtheria, typhoid fever, and scarlatina as from their surroundings were specially dangerous. The work, however, was not neglected, as tracts containing information as to what should be done were sent to the families of all persons sick with this class of diseases.

Small-pox.—An epidemic of this loathsome and dreaded disease prevailed during the latter part of 1874 and the whole of 1875, 4,648 cases being reported to the Board from May 1, 1874, to December 31, 1875. Of this number 1,532, or 30.29 per cent., were among the German portion of the population, less than one-sixth of the population of the city being of that nationality. A permanent corps of vaccinators was organized, and their effort to control the disease was aided by the appointment, on two occasions, of a larger number of physicians for short periods.

On the 12th of January, 1875, pursuant to chapter 636 of the Laws of 1874, and with the concurrence of the Board of Charities and Correction, the Board of Health took charge of the Small Pox Hospital on Blackwell's Island, and of the Reception Hospital established by the Commissioners of Charities and Correction on a dock at the foot of East Twenty-seventh street, adjoining the Bellevue Hospital grounds, and entered from those premises. The name of the hospital was changed to Riverside. Dr. J. J. Delaney was appointed

Resident Physician, and eight Sisters of Charity were installed as nurses. Repairs and alterations of the hospital were ordered, and it was placed in telegraphic communication with the office of the Sanitary Superintendent. Dr. E. H. Janes, the Assistant Sanitary Superintendent, was assigned to the charge of the hospital, and an orderly and one of the Medical Inspectors were detailed to accompany the sick from the Reception Hospital to the island. These measures made this institution one of the best hospitals of the city, and did away with the greater part of the prejudice which had formerly existed towards it. Since the Board of Health assumed control, 2,835 patients have been treated in this institution; and 408 persons, mostly mothers of young children sick with the disease, have been admitted to nurse their offspring and relatives.

The cause of this epidemic is manifestly found in the fact that a large number of people failed to avail themselves of the protection offered by vaccination and re-vaccination. The German portion of our population have been especially prejudiced against vaccination. These facts teach that a community cannot afford to neglect vaccination, and that this measure must be pushed vigorously when there is no epidemic as well as at the time of its existence.

Vaccinating Corps.—This Corps was organized as a branch of the Sanitary Bureau on October 1, 1874, and immediately entered upon the discharge of its duties. It was composed of a chief officer entitled Inspector of Vaccination, Dr. James B. Taylor; of eleven assistant inspectors, two clerks and a messenger. As already set forth, an amount of vaccination greater than could be performed by the regular Corps was demanded on two occasions, and a number of physicians were appointed for temporary service. These have increased the number of physicians employed in the work of gratuitous vaccination during the time embraced in this report to sixty-six, many serving for short periods of time.

126,003 vaccinations have been performed, 13,826 quill points charged with vaccine virus have been furnished gratuitously to various charitable institutions in the city, and $1,231.54 received for virus sold has been turned over to the City Chamberlain during the 15 months since the organization of this Corps.

The following circular printed in large type, in German and English, was posted in the halls of the tenement-houses, in conspicuous places, during the summer of 1875; it was prepared by the Sanitary Committee in hopes of lessening the prejudice against vaccination:

VACCINATION.

HEALTH DEPARTMENT, No. 301 Mott Street, New York.

At a meeting of the Board of Health, held June 1, 1875, the following report was submitted by the Sanitary Committee, and ordered to be printed:

Since the introduction of vaccination, the number of people in each million of living population dying from small-pox has been greatly diminished:

COUNTRY.	Before Vaccination. Years.	Average Number of People in 1,000,000 Dying each year of Small-pox.	After Vaccination. Years.	Average Number of People Dying each year of Small-pox in 1,000,000 of Living Population.
Lower Austria......	1776 to 1806	2,484	1807 to 1850	340
Upper Austria......	1776 to 1806	1,421	1807 to 1850	501
East Prussia........	1776 to 1780	3,321	1810 to 1850	556
West Prussia........	1780	2,272	1810 to 1850	356
Berlin..............	1781 to 1805	3,422	1810 to 1850	176
Bohemia............	1777 to 1805	2,174	1807 to 1850	215
Copenhagen........	1751 to 1800	3,128	1801 to 1850	286

A great many more people die of small-pox of those who are unvaccinated, as compared with the vaccinated:

PLACE.	TIME.	Whole Number having Small-pox.	Deaths in each 100 cases of Unvaccinated.	Deaths in each 100 cases of Vaccinated.
France........................	1816 to 1841	16,397	16 1-8	1
Philadelphia..................	1825	140	60	0
Bohemia......................	1835 to 1855	15,640	29 4-5	5
London, Small-pox Hospital...	1836 to 1856	9,000	35	7
Vienna, " " ...	1837 to 1856	6,213	30	5

This table shows that if people are vaccinated, and in after years get small-pox, that sometimes only one in a hundred dies, or sometimes only one in twenty, but if they have not been vaccinated, then sixteen or twenty-nine, or thirty or thirty-five in a hundred die.

The reason for being vaccinated a second or a third or more times, is seen by the fact that people who have been vaccinated may contract small-pox after some time. If small-pox is in the house or in the neighborhood, or some of your friends have it, be vaccinated at once, if you have not been successfully vaccinated within five years, and have your family vaccinated. Small-pox can be arrested by this measure. Doctors who are so much exposed to the disease do not get small-pox, because they are frequently vaccinated. This is the only thing they use to keep off the disease. Many of them are vaccinated every five years.

Never let your children be older than three or six months without being vaccinated so that it takes. Never let them be over seven years old without being vaccinated a second time. When small-pox is in the house where you live, or your friends have it, or it is in the neighborhood, have your child vaccinated, no matter what its age or its condition, nor what the time of year.

Vaccination with a clean lancet and with good matter, such as the Board of Health and good physicians use, seldom produces inflammation of the arm.

The Board of Health will perform free vaccination, at No. 301 Mott street, on week days, from 9 A. M. to 4 P. M.

If you cannot come, send your name and the number of the street at which you live, with a statement that you desire to be vaccinated, to Dr. James B. Taylor, Vaccinating Office, No. 301 Mott street, and he will send a doctor who will vaccinate free of expense.

By order of the Board.

C. F. CHANDLER,
President.

EMMONS CLARK,
Secretary.

Diphtheria.—The prevalence of diphtheria led the Board to direct special investigation to be made with a view to determine as accurately as possible its causes, nature, and the circumstances under which it occurs. Charts were prepared, to be filled either by the physician in charge of the case, or by the inspector with information obtained from him. The premises were carefully examined in search for defective house plumbing or drainage, and tracts giving directions for the sanitary management of the disease were freely circulated among the families afflicted with this terrible scourge. Doctors Edward Curtis and Thomas E. Satherthwaite were requested to investigate the disease by means of micro-pathological and other examinations, and their report will be found in the present volume.

Typhoid Fever.—Whenever deemed necessary, cases of typhoid fever reported to the Sanitary Bureau have been examined by the inspectors with reference to their origin, and necessary disinfection has been either performed or advised, and the premises have been carefully inspected with a view to the removal of any predisposing cause or aggravating circumstances.

Contagious Diseases of Horses.—When the attention of the Board has been especially called to the cases of glanders and farcy, the subject has been referred to Dr. A. Liautard, Consulting Veterinary Surgeon, for investigation. The Board has been made aware that it would be possible to practically eradicate the disease from the horses of the city, but as it rarely affects human life, it has not seemed proper to divert the already insufficient funds of the Board to such a purpose. The ordinances of the Code bearing upon this subject have been made more stringent, and printed copies have been circulated among the veterinary surgeons of the city.

Hydrophobia.—During March and April of 1874, four persons perished in this city from hydrophobia, and a panic fomented by numerous communications from ignorant persons and injudicious newspaper articles, seized upon the community. The public excitement rendered it necessary for the Board of Health to give the matter its attention. Dr. John C. Dalton, Professor of Physiology in the College of Physicians and Surgeons, together with Dr. A. F. Liautard, Professor in the N. Y. Veterinary College, and Consulting Veterinary Surgeon to this Department, were invited to express their views upon the subject. As the result of their communications, a circular was prepared containing brief directions for the recognition of rabies in the dog and for appropriate treatment in cases of bites by rabid animals. These cards were posted in station-houses and various public places, were distributed among the people, and their text was published in the newspapers. At the same time Sanitary Inspector Charles P. Russel, M. D., who had studied the disease with special attention both here and abroad, was instructed to prepare a complete report upon the subject of rabies. This will be found to embrace a comprehensive history of the affection, with its geographical distribution, its appearance in various times and countries as an epizootic ; an exhaustive statistical inquiry into its comparative prevalence during the four seasons, the conditions of its production and spread, its symptoms in different species of animals, and a consideration of the proper sanitary measures for its suppression.

Rescue of Drowning Persons.—The life-saving apparatus placed at different piers along the river front, for use in the rescue of drowning persons, has been carefully overhauled and repaired, and redistributed with such changes in location as seemed best adapted to the public wants ; being removed from such ferries as were provided with other means of rescue, and placed at some of the more frequented piers devoted to commercial interests. The necessary exposure of the apparatus is such as to subject it to rough handling, not only when occasion calls it into use, but even when no such occasion exists ; the curiosity of idle loungers or the pranks of mischievous boys may cause more injury than would result from honest wear and tear. Wherever the apparatus or any portion of it has been located, there are evidences that it has proved serviceable in rescuing persons from the water, and thus saving lives ; but as at these piers there are no persons who feel any special responsibility, or interest in the apparatus beyond the occasion calling it into use, no memoranda are kept of these occurrences, and hence it is impossible to obtain any reliable statistics ; yet it is the belief of this Board that its usefulness would warrant the expenditure of extending it more generally along the water front.

Sun-stroke.—Nineteen deaths were attributed to this cause in each of the two years, 1874 and 1875. The Board issued a circular prepared by the Sanitary Committee in each of these years, and copies were widely distributed among the laboring classes. The circular for 1874 will be found in the Appendix to the Report for 1873. The following was distributed in 1875 :

SUNSTROKE.

HEALTH DEPARTMENT,
No. 301 MOTT STREET, NEW YORK.

The following report of the Sanitary Commitee of the Board of Health, upon sunstroke, is approved and published by the Board :

Sunstroke is caused by excessive heat, and especially if the weather is "muggy." It is more apt to occur on the second, third, or fourth day of a heated term than on the first. Loss of sleep, worry, excitement, close sleeping rooms, debility, abuse of stimulants, predispose to it. It is more apt to attack those working in the sun, and especially between the hours of eleven o'clock in morning and four o'clock in the afternoon. On hot days wear thin clothing. Have as cool sleeping rooms as possible. Avoid loss of sleep and all unnecessary fatigue. If working in-doors, and where there is artificial heat—laundries, etc.—see that the room is well ventilated.

If working in the sun, wear a light hat (not black, as it absorbs heat), straw, etc., and put inside of it, on the head, a wet cloth or a large green leaf; frequently lift the hat from the head and see that the cloth is wet. Do not check perspiration, but drink what water you need to keep it up, as perspiration prevents the body from being overheated. Have, whenever possible, an additional shade, as a thin umbrella, when walking, a canvas or board cover when working in the sun. When much fatigued do not go to work, but be excused from work, especially after eleven o'clock in the morning on very hot days, if the work is in the sun. If a feeling of fatigue, dizziness, headache, or exhaustion occurs, cease work immediately, lie down in a shady and cool place; apply cold cloths to and pour cold water over head and neck. If any one is overcome by the heat, send immediately for the nearest good physician. While waiting for the physician give the person cool drinks of water or cold black tea, or cold coffee, if able to swallow. If the skin is hot and dry sponge with, or pour cold water over the body and limbs, and apply to the head pounded ice wrapped in a towel or other cloth. If there is no ice at hand, keep a cold cloth on the head, and pour cold water on it as well as on the body.

If the person is pale, very faint, and pulse feeble, let him inhale ammonia for a few seconds, or give him a teaspoonful of aromatic spirits of ammonia in two tablespoonfuls of water with a little sugar.

By order of the Board,
C. F. CHANDLER, *President.*
EMMONS CLARK, *Secretary.*

Infant Mortality.—In 1875, the number of deaths in persons over five years of age was 15,784. Had the ratio of deaths under five years of age been the same as in 1867 (53 to 47), the number under five years of age would have been 15,784 x $\frac{53}{47}$ = 17,799. The actual number of deaths under five years of age was 14,839, showing a saving of 2,960 children. Even assuming that the sanitary improvements during the past ten years have not diminished the deaths in those above five years of age, they must at least be credited with this reduction of infant mortality. There is every reason to believe, however, that there has been a great saving of lives above the age of five years, and a corresponding diminution in deaths under this age. Now, if Playfair is right in estimating the sickness-rate at twenty-eight times the death-rate, the above-mentioned figures show a most satisfactory improvement in the public health.

The following table indicates in its last column a steady falling of the percentage of deaths during the last nine years, in children under five years of age:

Infant Mortality.

YEAR.	Total Deaths.	Deaths over 5 years.	Deaths under 5 years.	PERCENTAGE.	
				Over 5 years of Age.	Under 5 years of Age.
1867	23,264	10,990	12,274	47.00	53.00
1868	24,705	11,638	13,067	47.50	52.50
1869	25,167	12,308	12,859	48.91	51.09
1870	27,174	13,841	13,333	50.94	49.06
1871	26,976	14,005	12,971	51.92	48.08
1872	32,423	16,235	16,188	50.42	49.58
1873	29,027	14,833	14,182	51.24	48.76
1874	28,589	14,533	13,956	51.19	48.81
1875	30,623	15,784	14,839	51.72	48.28

The following table, showing the relation of the weather to infant mortality during the most fatal weeks of the last nine years explains itself:

YEAR.	Week.	Total Deaths.	Deaths under five years of age from Diarrhœal Diseases.	Mean Temperature.	Mean Humidity.
1867	32d	708	224	75.	78.00
1868	29th	1,142	396	88.	60.00
1869	28th	726	262	76.27	62.33
1870	29th	1,041	379	82.31	53.81
1871	28th	822	303	79.48	62.48
1872	27th	1,591	618	83.97	75.01
1873	29th	917	418	72.80	67.00
1874	30th	861	349	74.80	56.00
1875	30th	939	939	72.60	69.00
Average		9,718	432	78.358	64.847

The excessive infant mortality in tenement-houses depends on a variety of causes. Through poverty, ignorance, or neglect on the part of the parents the child is often insufficiently or badly nourished. The arrangement of the rooms is necessarily such as to preclude a proper supply of pure air, nor can this be obtained in the streets or on the house tops in the warm days and nights of summer, when street-gutters are reeking with slops and garbage. The children of this class usually keep late hours, and their insufficient clothing in a variable climate, with a consequent exposure to sudden changes of temperature, conspire to render their existence precarious. When sickness comes, the apathy or ignorance of the mother often prevents her from availing herself of medical skill, and if the disease is contagious the crowded apartment furnishes the most favorable condition for its perpetuation.

The following report of the Sanitary Committee was extensively circulated among the tenement-house population:

Never neglect looseness of the bowels in an infant; consult the family or dispensary physician at once, and he will give you rules about what it should take and how it should be nursed. Keep your rooms as cool as possible, have them well ventilated, and do not allow any bad smell to come from sinks, privies, garbage boxes, gutters about the house where you live. See that your own apartments are right, and complain to the Board of Health, 301 Mott street, if the neighborhood is offensive. Where an infant is cross and irritable in the hot weather, a trip on the water will do it a great deal of good (ferry-boat or steamboat), and may prevent cholera infantum. Do not allow your children to eat unripe or decayed fruit. An infant under a year old should not have any fruit except by a physician's order.

In very hot weather, dress your children in thin clothing, and bathe them with cool water one or more times a day. Children under ten months to a year old do not need anything but the breast or good milk (cow's milk, when pure, is made like women's milk, by adding one-third water to two-thirds milk, and warming to blood-heat, and a little over one-fourth of an ounce of white sugar to a pint of the mixture of milk and water ; but in the city much of the milk has plenty of water and too little cream).

If you do not nurse the child, see that the nursing-bottle, tube and mouthpiece are kept in clean water when not used, and the addition of a little soda will keep them from becoming sour. If the baby does not thrive well on cow's milk consult a physician, and take him some of the milk you are using, or bring it to No. 301 Mott street, and the Board of Health will examine it for you.

Street Cars.—The subject of overcrowding the horse-cars of the city, and the means of preventing accidents on entering or leaving them have continued to engage the attention of the Board, but a careful inquiry into the subject has thus far failed to reveal a practical remedy. Pressure has repeatedly been brought to bear upon city car companies in order to compel them to abandon the use of cushions on the seats, and of padded backs. Filth and vermin are collected by these media and, no doubt contagious diseases are often propagated by them. The companies have for the most part complied fully with the requirements of the Sanitary Code, and in a few months, without hardship to these companies, all the cars of the city will be relieved from these objectionable features.

The action of the Board as regards the ventilation of the Eighth avenue line, was followed by a voluntary acquiescence on the part of the Ninth avenue line, in the same direction, and all the cars now being constructed are furnished with the most improved appliances known in modern car building.

Steam Railroads.—On the 25th of August, 1874, the following resolutions were passed :

Whereas, The locomotives of the New Haven, Harlem, and Hudson River Railroads, on Fourth avenue, above Forty-second street, are a source of most serious annoyance to the residents on the avenue and on the cross-streets to Lexington and Madison avenues, and of the Hudson River Railroad Company on the west side of the city, on account of the constant use of steam whistles and the dense volumes of smoke and cinders which issue from the smoke pipes ; and

Whereas, In the opinion of this Board these nuisances are detrimental to the public health ; and

Whereas, This Board is of the opinion that the use of the steam whistles, except as danger signals, is unnecessary, and the production of the smoke and cinders is caused by the use of inferior semi-bituminous coal and the neglect to use the coal-consuming contrivances adopted in Europe; therefore

Resolved, That the President and Chairman of the Sanitary Committee be and hereby are appointed a committee to confer with the Superintendents of the above-mentioned railroads, and secure relief from these intolerable and unnecessary evils.

In consequence of this conference, the Superintendents of the roads above-mentioned cheerfully adopted the views of the Board, and the annoyance has since existed at its minimum.

Fourth Avenue Improvement.—The completion of this great and important work upon the plans adopted for its sewerage and drainage has greatly improved the sanitary condition of this portion of the city. The diseases of malarial origin, which have recently prevailed along this route in consequence of the necessary disturbance of so large a quantity of soil, have ceased, and we no longer hear of accidents from passing trains, at the street crossings, or from the deep excavations which have been a constant source of danger to pedestrains.

Public Schools.—These physical and intellectual nurseries of the State should be sanitary models. The efforts of this Board have been directed, during the period included in this report, towards making their surroundings as salubrious as possible, rather than in suggesting radical, and for the present impracticable changes in construction. Sanitary defects of no small magnitude exist in them, the correction of which is exceedingly important in its bearing on the public health. The Board of Education has been in full communication with this Board upon the subject of small-pox, and has given this Board all possible facilities for vaccinating the children under its care. The Vaccinating Corps has, since it organization, performed 17,505 vaccinations in the schools, issuing to each pupil vaccinated the *following*

CERTIFICATE OF VACCINATION.

THE HEALTH DEPARTMENT OF THE CITY OF NEW YORK

Hereby certifies that ——— has received the benefit of a perfect vaccination.

In witness whereof, the officers of this Department have hereunto set their hands, this day of 187

C. F. CHANDLER,
President.

EMMONS CLARK,
Secretary.

———— ————
Inspector of Vaccination.

For history of case, see register of No.

with the view of impressing upon the children the importance of this prophylactic measure. The Board of Education has been furnished with a weekly, and when necessary a bi-weekly list of families in which small-pox has occurred, and whose children attended school, with a view to their exclusion until after the period of incubation. In addition to the vaccination in the public schools, there has been performed in the schools of the Children's Aid Society 2,384 vaccinations, making a total in the schools of 19,889

Public Parks.—The advantage of public parks in a densely crowded city like New York cannot be overestimated, and those already in existence contribute greatly to the public health. They are valuable for all classes, and supply not only fresh air but recreation, which is especially necessary for the children, particularly of the poor, who are obliged either to remain imprisoned in the limited rooms of the crowded tenement-houses, or to play in the streets where the air is foul from various emanations. While the existing parks are admirable as far as they go, and of inestimable advantage to this community, there is still a great want of additional parks in certain sections of the city, The most populous portion of the island, viz.: The Fourth, Seventh, Tenth, and Thirteenth Wards, with portions of the Eleventh and Seventeenth, comprising that portion of the city east of the Bowery and south of Houston street, is so distant from any available park that the children of the poor are practically deprived of the benefit of fresh air. The same is, to a considerable extent, true of the portion of the city west of Broadway in the Sixteenth and Twentieth Wards.

The most feasible plan for supplying this want is the establishment of three or four small parks, each covering a single block, appropriately laid out with greensward, shade trees, and seats.

The lives of many children would be saved every summer were such breathing spots accessible to their homes.

Public Markets.—The condition of the public markets has been as good as the several structures will admit. Most of these are old, and to place them in a satisfactory sanitary condition would require their entire reconstruction. The present Superintendent is efficient and watchful, and members of the Sanitary Police who are skilled in this line of duty have made daily inspections with a view to the discovery of improper articles of food exposed for sale.

Street Pavements.—One of the primary conditions necessary for securing civic cleanliness and its agency in the promotion of public health, is a system of smooth and durable pavements. It is gratifying to this Department, and must be so to the general public, to see the irregular cobble-stone pavement gradually replaced by the more uniform and durable one of trap rock or granite. Either one of these, in the form of cubical blocks, and securely laid on a firm and well prepared bed, constitutes a pavement conducive to health, in that it is readily and easily cleaned, well adapted to business from the comparative ease with which heavily laden vehicles are drawn over a smooth roadway, and durable, not only from the hardness of the material, but the foundation being firm, the regular sides of each well-laid block assist to keep the contiguous blocks in place. On the other hand, the rounded sides of the cobble stone afford no such support, The stones are, therefore, easily displaced, the surface becomes rough, defying the broom, and proving equally destructive to well-worn vehicles and jaded horses. The wood pavements in use, though they may be of temporary service for light vehicles, have in this, both in sanitary and business point of view, proved entire failures.

Sewerage.—Whenever the Sanitary Inspectors have reported sewers obstructed or out of repair, or whenever the construction of a sewer through any street has been recommended as a sanitary necessity, the Board has promptly referred the matter to the Department of Public Works, for the necessary action. Especial attention has been called to the sewer in Centre street, between Pearl and Canal streets, as entirely inadequate to drain the district in which it is located. Owing to the nature of the soil upon which this sewer rests, portions of it were found to have sunken below the original level, forming depressions in which water and filth had collected to a considerable depth ; at other points the sewer had become so obstructed by the solid portions of the sewage as to render it wholly inadequate for its purpose, and the neighboring cellars, instead of being drained, were found to be flooded by the water backing up from the obstructed sewer. This was particularly the case with the cellar beneath the City Prison, the surface of which was found covered with water to a considerable depth. It was earnestly urged that this sewer be taken up, and a substantial one constructed which would be adequate to the complete drainage and sewerage of the district. The Board takes pleasure in stating that this recommendation was complied with by the Department of Public Works with as little delay as possible, and at the time of this writing the improved condition of the cellars in the vicinity amply testifies to the importance of this work.

It has been proposed to construct sewers from river to river, in order that the tide-water may wash through and thus effect a thorough cleansing. However desirable such a system of sewerage may appear, the topography of this island renders it wholly impracticable, as the great depth to which it would be necessary to excavate in nearly every street, would involve the city in an enormous expense, which would be unjustifiable in view of our present facilities for flushing. It is now estimated that 100,000,000 gallons of Croton water pass through our sewers daily, which, in addition to the rain-fall, is, in the opinion of this Board, sufficient to wash out pretty effectively all of the well-constructed sewers. Efforts to utilize sewerage so largely diluted as is that of this city would, in the opinion of this Board, result in an absolute failure, so far as it regards economy, the saving at the most liberal calculation not exceeding one-third of the cost; as there are no contiguous lands for irrigation, it is safe to say that, so far as New York is concerned, sewage farming is out of the question.

Receiving Basins.—The receiving basins at the street corners are often sources of foul odors, particularly in dry weather. These basins receive the surface water from streets and sidewalks, and frequently have washed into them large quantities of street and gutter filth, especially in neighborhoods where there are large tenement populations or much street traffic. Much of this filth accumulates at the bottom of the basin, while the water passes through into the sewer, enough remaining in the basin to form a water-seal or trap. In ordinary times the water-seal is perhaps sufficient to trap the basin, and thus to prevent the escape of gases from the sewer into the street; but in seasons of drought, where there is no fall of rain for several successive weeks, the water-seal becomes exhausted by evaporation; the organic matter which has accumulated in the basin being thus exposed to the atmosphere, decomposition is established, and the gases developed by this process, as well as those resulting from scarcity of water within the sewer, find ready escape through the unsealed trap of the receiving basin into the external air. The offensive odors escaping from these street basins during protracted seasons of hot and dry weather induced the Board to ask the Commissioner of Public Works to cause these basins to be flushed from the street hydrants, at stated intervals, during the dry and hot season of summer, with a view to arrest decomposition and replenish the exhausted traps.

Drainage—Tidal Lands—Sunken Lots.—During the period embraced in this report the usual share of the Board's attention has been devoted to the subject of land drainage and the treatment of tidal lands and sunken lots. Sewerage, although conveying away the waste and surface-water, is not adequate to the removal of soil moisture, and in order to effect a proper drainage of the soil it is necessary often to resort to deep drains independent of sewers.

Under chapter 556, Laws of 1871, during the year 1874 eleven certificates, setting forth the necessity for draining certain lands by other means than by sewers, were referred to the proper departments for the necessary action. Of these eleven certificates six were in relation to lands on the island, and were referred to the Department of Public Works, while five, in relation to lands in the new district, were referred to the Department of Public Parks. During the year 1875 fifteen similar certificates, ten of them referring to lands on the island and five to lands in the new district, were for the same purpose referred to the respective departments. In addition to these there were several recommendations for filling sunken lots, and for draining, levelling, and grading tidal lands. The necessity for such action is warranted by the continued existence of malarial diseases.

Mill Brook, which is practically an open sewer running through the southeastern portion of the district recently annexed, has claimed the notice of the Board again, as it will continue to do until a comprehensive system of sewerage and drainage is properly carried out. While pressing upon the proper authorities the incalculable sanitary value of such a proceeding, the Board has recognized the importance of giving all temporary relief possible to the inhabitants of the district, from the low lands draining into it and from the offensive emanations from its contents. By the direction of the Board, in the spring of 1874, and again in 1875, about two and a half miles of this brook, the most offensive portion, was the subject of attention. In order to make the current as swift as possible, obstructions were removed from the bed, the channel in some places levelled and deepened, the banks were in many instances straightened, and the sediment removed, disinfected, and covered with fresh earth. The amount expended in this work was $425.50 in 1874, and $413.25 in 1875.

Croton Water.—An examination of the Croton water is made weekly by the chemist of this department, and the result is communicated to the Sanitary Superintendent, who is instructed to report to the Board any indications of impurities likely to injure the public health. The facts heretofore established by chemical investigations as to the purity of Croton water are constantly confirmed. The following tables present the average result of the weekly examinations for the years 1873, 1874, and 1875.

The Average Results of the Weekly Examinations of Croton Water.

TABLE I.

GRAINS IN ONE U. S. GALLON OF 231 CUBIC INCHES.

YEAR.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Hardness Equivalent to Carbonate of Lime.	Oxygen required to Oxidize Organic Matter.
1873............	3.634	0.925	4.560	1.978	0.078
1874............	3.395	1.029	4.424	1.942	0.096
1875............	3.298	1.070	4.368	1.922	0.123

TABLE II.

PARTS IN 100,000.

YEAR.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Hardness Equivalent to Carbonate of Lime.	Oxygen required to Oxidize Organic Matter.
1873............	6.230	1.590	7.820	3.395	0.135
1874............	5.830	1.760	7.590	3.332	0.166
1875............	5.656	1.835	7.491	3.293	0.211

Occasionally, complaint is made of turbidity in the water and of disagreeable odor. These conditions are inevitable at certain seasons, owing to the circumstances of rain-fall or drought and sometimes to the fact that the melting of the ice and snow in the spring, before the frost comes out of the ground, causes a scouring of the surface and the washing into the streams of vegetable and earthy matter. Careful scrutiny of the reports of sickness and deaths at such seasons fails to show any unfavorable influence of this condition of the water on the public health. It is not believed that contamination of the Croton of an injurious character is possible. During these periods when the water is not pleasant to the senses, it is often suggested that the old wells of the city should be opened and used. Well-water, as it always undergoes filtration through the soil before it reaches the well, is clear, and it is generally cool and palatable, and for this reason is more acceptable to the taste than river water ; but it should be remembered that often these qualities may exist, while, at the same time, the water carries with it the poison of typhoid fever and other diseases, and that under no circumstances can the well-water of a populous community be used without danger of serious epidemics.

The Adulteration of Milk has received considerable attention during the past two years, and thirty-seven convictions have been obtained under the sanitary ordinance covering this subject, the fines being paid into the city treasury. The arrest and prompt punishment of those who tamper with an article of daily use throughout the city has already been attended with salutary effects, and, if successfully continued, must ultimately stop an evil of long standing and great extent.

Unwholesome Meat.—An inspection of the meats sold at the different markets was made by the members of the Sanitary Company of Police, and the following table shows the amount of such food condemned during the years 1874 and 1875. Much unwholesome meat, no doubt, escapes the notice of the Inspectors, and is distributed in private markets and sold to the poor, who are attracted by the low prices at which it is offered. It is a subject of regret that this Board has not the means to maintain a more complete supervision of the entire food supply of the city.

Amount of Meat, Fish, etc., seized and condemned by the Sanitary Company for the year 1874.

1874.	CARCASSES.	POUNDS.	NO. OF.	GALLONS.
Cattle	58	......	......	......
Sheep	427	......	......	......
Hogs	146	.....	......	......
Veal	......	11	......	......
Veal (Bob)	1,373	......	......	......
Veal (Cut)	929	2,124	......	......
Calves (Bob)	519	......	......	......
Calves (Case)	355	......	......	......
Beef	......	17,754	......	......
Poultry	......	12,842	......	......
Pigs	16	......	.....	......
Squirrels	......	......	33	......
Game	......	1,808	......	......
Pork	......	5,366	......	......
Mutton	......	685	......	......
Rabbits	......	......	44	......
Fish	......	334,054	......	......
Lambs	36	......	......	......
Ham	......	1,080	......	......
Pigeons	......	......	448	......
Scollops	......	......	......	340
Venison	......	95	......	......
Cheese	.....	467	......	......
Antelopes	......	540	......	......
Corned Beef	......	140	......	......
Tongues	......	46	......	......

Amount of Meat, Fish, etc., seized and condemned by the Sanitary Company for the year 1875.

1875.	CARCASSES.	POUNDS.	NO. OF.	GALLONS.
Cattle	40	......	......	......
Calves (Bob)	1,295	......	......	......
Calves (Case)	64	......	......	......
Calves (Heads)	......	......	8	......
Cattle Feet	......	1,600	......	......
Sheep	67	......	......	......
Hogs	151	......	......	......

Amount of Meat, Fish, etc., Seized and Condemned, etc.—(Continued).

1875.	CARCASSES.	POUNDS.	NO. OF.	GALLONS.
Beef	......	6,342	......	......
Veal	......	4,576	......	......
Poultry	......	8,054	......	......
Mutton	......	417	......	......
Sausage	......	306	......	......
Fish	......	93,209	......	......
Game	......	265	......	......
Lambs	34	......	......	......
Corned Beef	......	134	......	......
Bear Meat	......	75	......	......
Scollops	......	......	......	34

The Sale of Poisons.—The number of deaths from accidental, and specially from intentional poisoning, in 1874 and 1875, has led the Board to issue a circular, which was distributed among druggists, painters, color dealers and others. There is reason to believe that much good has resulted from thus calling the attention of tradesmen to the laws regulating the sale of poisons.

Sanitary Bureau.—The Sanitary Bureau is under the direction of the Sanitary Superintendent and Assistant Sanitary Superintendent. It includes the Inspectorial, Disinfecting and Vaccinating Corps, and is charged with the care of the Reception and Riverside Hospitals for contagious diseases. There are ten regular Sanitary Inspectors and six Assistant Sanitary Inspectors, all of whom are physicians. In addition to these there is one Assistant Inspector who is an engineer, and one is a chemist. There is a Chief of the Disinfecting Corps, who is a chemist; and a Chief of the Vaccinating Corps and twelve Vaccinators who are physicians.

In addition to this regular force, inspectors are temporarily appointed from time to time, as occasion may demand, for the detection and arrest of violators of certain provisions of the Sanitary Code, and to meet special emergencies.

The city is divided into districts, whose size depends upon the strength of the inspectorial force and somewhat upon the especial character of the population. These districts are under the charge of a Sanitary Inspector, or an Assistant Sanitary Inspector, whose duty it is to report in proper form all nuisances or conditions which endanger the public health ; to care for contagious diseases, and to see that the orders of the Board are executed. They are always on duty, and are liable to be detailed to any part of the city at any time for special duty. The delicate and responsible nature of their services, since the orders of the Board are mainly based on their reports, necessitates that they be men of education, capacity and integrity, and that they be thoroughly instructed in their various duties.

Report of the Work Performed in the Sanitary Bureau for Twenty Months—May 1, 1874, *to December* 31, 1875.

MATTER AND PLACES INSPECTED.	TOTAL INSPECTIONS.	MATTER AND PLACE INSPECTED.	TOTAL INSPECTIONS.
Public buildings	292	Oil works	1
Tenement houses	85,245	Sausage factory	2
Private dwellings	14,460	Gas works	6
Other dwellings	10,724	Dangerous chimneys	134
Dangerous buildings	17	Cemeteries	11
Uninhabited dwellings	16	Roadways	33
Manufactories and workshops	1,206	Dangerous stairways	908
Stores and warehouses	1,579	Cisterns and cesspools	225
Stables	5,685	Dumping-grounds	182
Slaughter-houses	4,048	Manure dumps	180
Markets and market places	121	Piggeries	55
Piers and docks	17	Breweries	36
Public sewers and drains	226	Cattle yards	10
Sunken and vacant lots	3,283	Coal yards	12
Yards, courts, and areas	5,656	Ash and garbage carts	43
Cellars and basements	5,544	Lakes, swamps, and ponds	13
Waste-pipes and drains	6,180	Tidal lands	1
Privies and water-closets	12,935	Lands and places	9
Streets, gutters, and sidewalks	4,729	Quarries	4
Fat and lard rendering establishments	581	Tunnel	1
Gut cleaning establishments	94	Lime kiln	1
Head cleaning establishments	49	Mill	1
Bone boiling establishments	2	Water courses	13
Dyeing establishments	5	Violations of Sanitary Code	185
Rag and bone houses	9	Other nuisances	1,391
Smoke houses	11	Visits to contagious diseases	4,068
Offal boat	3	Railroad cars	13
Rag warehouses	2	Total inspections	170,257

Total number of citizens' complaints	6,932
" vessel permits	5,282
" scavengers' permits	8,931
" manure permits	515
" rag permits	414
" miscellaneous permits	19
Whole number of reports received	57,959
" positive reports received	51,915
" negative "	2,926
" general "	3,118
" reports found correct	57,545
" " returned for correction	414
" " forwarded	49,956
" negative reports forwarded	2,945
" general "	3,059

Sanitary Permits.—The Sanitary Code provides that certain business pursuits included within the category of "offensive trades," shall not be conducted within the built-up portions of the city without a permit from this Board; this prohibition extends to the keeping of any offensive material or animals which, by their nature and habits are or may become offensive and detrimental to health. In accordance with this provision, the Board has entertained the usual number of applications for permits, which applications are referred to the Sanitary Superintendent, upon whose report final action of the Board is taken.

The following is an exhibit of the number and nature of sanitary permits granted from May 1, 1874, to December 31, 1875:

To keep fowls	78
To render fresh lard	8
To place tan bark in the street	1
To keep goats	3
To keep swine	4
To keep cows	27
To construct manure vaults	2
To keep a pound	1
To manufacture gas	1
To occupy rear building	1
To remove clarified blood	1
To load brewers' grains	1
To erect buildings on front of lots	3
To render fresh fat	13
To erect extension to building	2
To slaughter animals	4

To occupy basements	3
To store manure	4
To manufacture glue	1
To cure calves' rennets	2
To manufacture sausages	2
To drive cows	17
To cart manure	1
To dry blood, scrap, and offal	4
To bale manure	1
To store rags	1
To reoccupy premises	1
To smoke meat	1
To fill bulkhead	1

Twelve of these permits have been revoked for non-compliance with the conditions upon which they were granted.

During the same period the Sanitary Superintendent has daily granted permits to scavengers to empty privies; permits to land cargoes from vessels discharged from Quarantine; to transport manure, and to drive cows to and from pasture in the upper part of the city.

The Sanitary Company of Police.—During the period embraced in this report much valuable service has been rendered by the Sanitary Company of Police under command of Captain Yule. These officers serve the orders of the Board upon owners, lessees, and occupants of premises requiring abatement of nuisances; report upon the compliance or non-compliance with such orders; they inspect and report upon minor nuisances, and whenever required they have afforded efficient aid to the Inspectors in their efforts to carry out the instructions of the Department in dealing with patients suffering with contagious diseases, or the disposal of infected articles believed to be dangerous to life and health. Two of these officers, selected on account of their practical knowledge of the subject, are detailed for the inspection of meats at the public markets, and by their efforts large quantities of meats unsuitable for human food have been condemned and removed to the offal dock.

Disinfecting Corps.—This Corps, a branch of the Sanitary Bureau, is under the charge of Herman Endemann, Ph. D., and has for its duties the disinfection of premises infected with contagious diseases; of offensive privies, yards, and cellars; of streets, street-gutters, and all localities especially injurious to health; the removal of small-pox cases to hospital, and of bodies, dead of small-pox, to the Morgue. Experience has shown the necessity of keeping up the Corps to its full strength, since the qualities required in the discharge of its duties, often delicate in the extreme, are not always within reach when needed, while in the absence of epidemics their services are available in many directions. During the summer months an additional force of laborers, carts, and drivers has been found necessary for street and privy disinfection.

The Bureau of Attorney and Counsel.—This important Bureau, to which is intrusted in a great measure the enforcement of the orders of this Board and the provisions of the Sanitary Code, was reorganized under the Law of 1874, chapter 636, by the appointment of the Attorney as Counsel. His report, to which particular attention is directed, will be found in the Appendix. It is very gratifying to observe that much less resistance to the orders of the Board, and the sanitary measures it has been compelled to insist upon and to sustain with its authority, to prevent great dangers which have seemed at our own doors, has been shown with the last two years than in the first year of this Department.

The number of suits has diminished and the receipts from penalties, which have been paid over monthly to the City Chamberlain, have been correspondingly less, but on the other hand, as will be seen by the reports of the Sanitary Bureau, the amount of sanitary work performed has not been diminished, though so much of it has been done voluntarily by the citizens. This result has been owing, in a great degree, to the firm stand taken by this Department in insisting in the first instance upon compliance with its orders, without favor to any one, in which it has been sustained by the courts; and also to the fact of the independence of the law branch of this sanitary service, which has enabled the Department to pursue its own work with vigor, untrammelled by the complications which might easily arise if it were compelled to depend upon the co-ordinate departments, or continually refer to the other law officers of the city for their advice.

Bureau of Vital Statistics.—This Bureau is charged with the duty of registering the births, marriages and deaths that occur in this city. It furnishes a correct statement of the causes and circumstances producing death, designates the diseases incidental to or influenced by location, temperature and overcrowding, and it very materially aids in the prevention of crime by calling the attention of the proper officials to all deaths which are attended by suspicious circumstances. It assists the Sanitary Bureau in the discovery of cases of pestilential and infectious diseases, and of the localities where an unusual number of deaths have occurred, and thereby secures the adoption of timely hygienic measures for the removal of the deleterious causes, and prevents the spread of disease. Precautions are taken that bodies of persons who die from small-pox, cholera, yellow fever and other dangerous contagious diseases are not allowed to be publicly exposed, and the danger of the spread of diseases by this means is carefully guarded against. An accurate registration system is invaluable to the genealogist, and is often the only means of proving legitimacy and heirship. It helps the study of longevity, points out the average age of man and the diseases most to be feared at the different periods of life. The report of the Register of Records for the years 1874 and 1875, with the Vital Statistics for those years, will be found in the Appendix.

Amendments to the Records.—Within the last two or three years frequent applications have been made to correct the records of vital statistics of past years which have been filed in this Department. The rules of the Department have prohibited changes "in the records of births, marriages and deaths which occurred previous to May 11, 1873," but in one or two instances the intervention of the courts has been sought.

The law of 1853, under which there is at present a registry, was part of a general system for the State, designed merely to secure statistics approximately correct, dependent exclusively upon the obligations of private citizens, which cannot always be enforced, to make reports within certain limited periods. No method of verification, nor in fact of correction, was provided. A general clause in a subsequent law, intended undoubtedly to apply to a very different class of records, requires public officers to certify to any citizen copies of their records. Taking advantage of these provisions, our citizens of foreign birth, who have evidence to supply in foreign countries, use copies of our records as of the same force and effect as those of the bureaux of registry of citizens in other countries, authenticated by the official seals and attested by their consuls. With foreign registry ours cannot at all be compared. Ours is notably inaccurate and incomplete ; French, German, and most European registers are regularly kept, inspected, verified and never changed, except after an adjudication by competent authority, and in most cases a judgment of a court.

Our law is readily made, in this way, an instrument of fraud, and means are sometimes taken to fabricate records and evidence by its aid, which in another land may stand in the place of legitimate proof.

Such defects in the statute now in force have been made apparent in this experience that some new legislation upon this subject would seem desirable. Particularly in regard to the reports of births and deaths is this important. An inspection of the reports should in some way be had under proper authority, so that the public record should have due weight and value, and be made upon the responsibility of the public officer whose duty it is to make up the registers.

Births.—There were 25,669 births registered in 1874, and 23,813 in 1875. The number of birth certificates received by this Bureau is not entirely satisfactory ; there should be, at least, 36,000 births recorded annually. A difficulty in enforcing the law and the failure to comply with its provisions by those charged with the duty of making returns of births, diminish the practical value of the registry of births in the city for statistical purposes.

Marriages.—The law requiring the returns of marriages is similar in its operations to that of births, and is consequently defective. The number of marriages properly certified and reported to this Bureau during the year 1874, was 8,397, and in 1875, 7,565. The number that should be reported exceeds 10,000. The diminution in the returns of marriages is doubtless partially due to the growing laxity and neglect among the clergymen to comply with the law.

Deaths.—The number of deaths in this city during the year 1874 was 28,723, and in 1875, 30,709. The increase in the number of deaths in the latter year was due to the unusual fatal visitation of small-pox, diphtheria, pneumonia, and diseases of infantile life. A comparative statement will show the great increase in the deaths from those diseases during the year mentioned, viz. :

	1874.	1875.
Small-pox	484	1,280
Diphtheria	1,665	2,311
Pneumonia	2,398	2,802
Diseases of Children, 5 years and under	13,956	14,839
Total	18,503	21,232

The returns of death are complete, and the certificates are made and forwarded with scrupulous care by the medical attendants. The great number and variety of institutions in this city, and the facilities offered for obtaining skillful medical attendance, induce many persons to come here annually for treatment, and add to our death-rate. The number of deaths in the institutions within the city limits, in 1874, was 4,758, and in 1875, 5,189.

Regulation of Medical Practice.—A law was passed May 11, 1874 (chapter 436), regulating the practice of medicine and surgery. Although the law is imperfect, it serves to some extent as a barrier against the operations of the most noted quack and criminal practitioners. Since the passage of this law this bureau has not allowed the name of any medical practitioner to be signed on the register for physicians unless he produces satisfactory evidence that he is entitled to practice under this act. A great deal of mischief is annually done by incompetent medical practitioners, and there is no doubt that there would be a saving to life if a strict law existed which would insure competent medical attendance.

Receipts.—All moneys received by this Department during the years 1874 and 1875, were duly accounted for to the Comptroller, and deposited with the City Chamberlain, as follows:

Amount realized in settlement of actions commenced for the enforcement of the orders of the Board and the Sanitary Code, 1874	$9,445 95
Searches and transcripts of the Records under Rules 87, 88, 89, adopted September 22, 1874	166 45
Sales of Vaccine Virus for December, under chapter 635, Laws of 1874	15 00
Total for 1874	$9,627 40

Amount realized in settlement of actions, 1875........	$8,194 59
Searches and transcripts of the Records, 1875........	703 57
Sales of vaccine virus, 1875........................	1,231 64
Total for 1875......	$10,129 80

Expenditures.—The amount appropriated by the Board of Estimate and Apportionment for the use of the Health Department for year 1874, was $186,461.57, of which amount the sum of $175,885.84 was expended, leaving a balance of $10,575.73 unexpended. This is exclusive of the sum of $40,000 appropriated and paid for the removal of dead animals, offal, and night-soil from the city.

The amount appropriated as the Health Fund for 1875, was $165,000, with an addition of $17,000 for expenses of the Small-pox Hospital, the care of which was transferred to the Health Department at the beginning of the year by the Department of Public Charities and Correction. During the year 1875, additional sums were appropriated by the Board of Estimate and Apportionment for the use of the Health Department, amounting to $20,250, which additional appropriations were rendered necessary by the prevalence of small-pox in the city, and consequently for the purpose of securing additional accommodations for small-pox patients, and of extending the benefits of gratuitous vaccination by additions to the Vaccinating Corps. A small part of the sum above named was expended upon investigations of the cause and character of diphtheria, and in filling a part of the public ground on Harlem Flats, the condition of which was considered dangerous to life and detrimental to health. The whole sum, therefore, appropriated for the use of the Health Department, in 1875, including the salaries of the Vaccinating Corps organized under chapter 635, Laws of 1874, and exclusive of the sum annually appropriated for the removal of dead animals, offal, and night-soil, was $202,018, and the sum expended was $201,786, leaving a balance unexpended of $232. The expenditures of this Department for the years 1874 and 1875 were reduced and limited so far as consistent with its public duties and responsibilities. Its officers and employees were moderately paid, considering the services rendered, and purchases of supplies were made from responsible parties at the lowest market rates.

The City Departments.—The Board is necessarily in frequent communication with the other departments of the city government, and has sometimes occasion to call their attention, by reference or otherwise, to subjects of a sanitary character. It is proper to acknowledge the uniform attention and courtesy with which all communications and suggestions from this Department have been received, and the desire manifested to make any improvements which for sanitary reasons have been deemed necessary, and to heartily co-operate with this Board in all measures for the protection of the public health. The work of this Department has been materially facilitated by such co-operation.

Respectfully submitted,

CHARLES F. CHANDLER,
President.

EMMONS CLARK,
Secretary.

REPORT OF THE SANITARY SUPERINTENDENT.

Sanitary Bureau, December 31, 1875.

To the Secretary of the Board of Health of the Health Department:

I beg respectfully to submit the following report of the duties performed by the Sanitary Inspectors, Assistant Inspectors, and other officers and employees of the Board under my control, and by myself, during the twenty months from May 1, 1874, to December 31, 1875, inclusive.

The Sanitary Bureau at the beginning of the year was constituted as follows, viz.:

Sanitary Superintendent and City Sanitary Inspector.
Walter De F. Day, M. D.

Assistant Sanitary Superintendent.
Edward H. Janes, M. D.

A. B. Judson, M. D	*Sanitary Inspector.*
S. F. Morris, M. D.	" "
W. H. B. Post, M. D.	" "
C. P. Russel, M. D.	" "
Augustus Viele, M. D	" "
C. F. Roberts, M. D	" "
R. S. Tracy, M. D	" "
J. D. Bryant, M. D.	" "
W. E. Hall, M. D	" "
A. McL. Hamilton, M. D	*Ass't Sanitary Inspector.*
Bernard Hughes, M. D	" "
C. E. Lockwood, M. D	" "

W. A. Ewing, M. D	*Ass't Sanitary Inspector.*
George B. Fowler, M. D	" "
Alexander Strong. M. D	" "
C. H. Atwater, M. D	" "
N. B. Emerson, M. D	" "
J. F. Comfort, M. D	" "
C. F. Rodenstein, M. D	" "
P. De Marmon, M. D	" "
E. B. Sanborn, M. D	" "
Henry Sheppard, M. D	" "
George R. Phillips, M. D	" "
Thomas J. Nealis	" "
Elwyn Waller, Ph. D	" "
C. Y. Hammond	" "
James R. Griswold	*Chief Clerk.*
William B. Fernhead	*Clerk*
Bloomfield Usher, Jr	"
Robert C. Morgan	"
William A. Smalley	"
Joseph L. Berkwick	*Messenger.*
Herman Endemann, Ph. D	*Chief Disinfecting Corps.*
Thomas D. Yates	*Disinfecting Corps.*
Bartholomew McGowan	" "
Robert Danfield, Jr	" "
William Reynolds	" "
John J. Devitt	" "
Richard Kiernan	" "

RESIGNATIONS, APPOINTMENTS, AND PROMOTIONS.

May 5, 1874—Assistant Inspector, Dr. Henry Sheppard, resigned; Dr. Joseph Cushman, appointed Assistant Inspector; Dr. Geo. R. Phillips, resigned.

May 26—Robert Danfield, Jr., resigned from Disinfecting Corps.

June 9—Dr. Bernard Hughes, promoted to position of Sanitary Inspector, *vice* Dr. Paul F. Munde, resigned.

June 30—James R. Healy, appointed Assistant Sanitary Inspector.

September 29—Dr. J. B. Taylor, appointed Inspector of Vaccination; appointment of Dr. R. D. Nesmith, Dr. M. J. Fleming, Dr. A. B. De Luna, Dr. E. S. Pardee, Dr. P. B. Wyckoff, Dr. F. Livermore, Dr. E. H. Post, Dr. H. Rockwell, Dr. H. R. Williams, Dr. J. E. Tucker, and Dr. Y. W. P. Flynn, Assistant Inspectors, assigned to the Vaccinating Corps; Clerks appointed to the Vaccinating Corps: S. B. Ellis, W. W. Post, Louis T. Brennan, Allott Lodge; John Schnell, appointed Messenger.

October 22—Resignation of Wm. H. Dayas; L. C. Laudy and C. Sniffen, appointed for one month for Special Analytical Service.

October 20—Services of John J. Devitt dispensed with; resignation of S. A. Goldschmidt, as Assistant Sanitary Inspector; resignation of Joseph L. Berkwick; Francis McDonald, appointed Messenger, *vice* Berkwick, resigned.

November 2—Belden Yale, appointed Messenger.

December 8—Dr. Robert Campbell, Dr. J. N. Husted, Dr. Robert Taylor, Dr. Wm. J. Pursell, Dr. J. J. Reid, Dr. G. D. Daley, Dr. W. G. Wylie, Dr. N. G. McMaster, appointed Assistant Sanitary Inspectors to Vaccinating Corps (temporarily); Dr. Satterthwaite, appointed and associated with Dr. Edward Curtis, investigating diphtheria; Matthew Drum, appointed on Disinfecting Corps.

December 22—Dr. J. C. Conover, Dr. A. P. Dalrymple, Dr. E. S. Birmingham, Dr. Frank Bosworth, Dr. F. S. Osborne, Dr. L. C. Gray, Dr. Ira B. Read, Dr. C. Lyon, Dr. G. Treskatis, Dr. T. M. Cran, Dr. V. J. McGay, and Dr. R. A. Joyce, appointed Assistant Sanitary Inspectors to Vaccinating Corps (temporarily); Dr. Henry G. Piffard, appointed Honorary Dermatologist to the Board.

January 12, 1875—Services of the following Officers and Clerks dispensed with from and after January 31, 1875: Dr. A. B. Judson, Dr. S. F. Morris, Dr. W. E. Hall, Dr. G. B. Fowler, Dr. A. Strong, Dr. C. H. Atwater, Dr. H. B. Emerson, Dr. C. F. Rodenstein, Dr. P. De Marmon, Dr. E. B. Sanborn, Dr. J. R. Healey, Dr. R. D. Nesmith, Dr. Henry Rockwell, Allott Lodge, B. Usher, Jr., W. Roberts, E. W. Farrington, J. F. Swords, J. W. Conklin, and E. A. Farrington.

January 26—Services of the following Assistant Sanitary Inspectors appointed temporarily to Vaccinating Corps dispensed with:

Dr. J. N. Husted, Dr. Robert Campbell, Dr. W. G. Wylie, Dr. John J. Reid, Dr. Wm. J. Purcell, Dr. G. D. Daley, Dr. Charles Laight, Dr. Thos. L. Janeway, Francis M. Purroy, Dr. J. W. Battershall, Dr. Geo. H. Fox, Dr. A. P. Dalrymple, Dr. Jacob C. Conover, Dr. F. S. Osborn, Dr. F. H. Bosworth, Dr. Titus M. Coan, Dr. J. R. Reid, Dr. L. C. Gray, Dr. R. A. Joyce, and Dr. Caleb Lyon.

February 2—Mrs. J. Bowers, appointed Matron at Reception Hospital.

February 23—Dr. James J. Delaney, appointed Physician at Riverside Hospital, to date from January 20, 1875; Wm. Roberts, appointed Clerk at Riverside Hospital, to date from February 3, 1875.

March 23—Michael Murphy and John McNally, appointed to Disinfecting Corps.

March 30—Resignation of S. B. Ellis as Clerk.

April 13—J. G. Dudley, Edward J. Gallagher and Lewis Morris, appointed Clerks.

April 20—Assistant Sanitary Inspectors Lockwood, Ewing, and Hamilton, promoted to office of Sanitary Inspectors; Drs. J. B. White, J. T. O'Connor, Stuyvesant F. Morris, C. H. Atwater, E. C. Passmore, and C. F. Rodenstein, appointed Assistant Sanitary Inspectors; Dr. Wm. J. Purcell, appointed Assistant Sanitary Inspector in the Vaccinating Corps; Drs. J. N. Husted and T. E. Cone, appointed Examiners of Death Certificates.

April 27—Dr. E. W. Kitchen, appointed Assistant Sanitary Inspector; John H. Bazin, Thos. J. McNamara, and Wm. A. Stoutenberg, appointed Clerks; resignation of Wm. Leggett, O. N. Chapin, and A. M. Holden, as Clerks.

May 11—Resignation of Dr. E.W. Kitchen, as Assistant Sanitary Inspector; Dr. Stephen Smith, appointed Honorary Consulting Hygienist to the Board; Dr. A. B. Judson, appointed Assistant Sanitary Inspector.

June 1—The following Physicians appointed Temporary Vaccinators: Drs. J. C. Conover, Geo. M. Schwieg, W. G. Wylie, J. L. Adams, E. P. Williams, E. Boetzkes, J. B. Healy, J. L. Perry, E. A. Maxwell, Alex. Strong, T. L. Janeway, A. P. Dalrymple, N. G. McMasters, E. F. Bush, Franz Heuel, Jr., W. P. Ackerman,

L. Putzel, B. J. Harlan, J. J. Purcell, and J. L. Wilson; Bernard Engelman, M. D., appointed Assistant Resident Physician at Riverside Hospital.

June 15—Wm. Cooney, appointed to Disinfecting Corps; resignation of Richard Kiernan, of Disinfecting Corps; resignation of Joseph E. Tucker, M. D., of Vaccinating Corps.

June 29—Resignation of Bernard Engelman, M. D., as Assistant Resident Physician at Riverside Hospital; Dr. Guy D. Daly, appointed Assistant Resident Physician at Riverside Hospital; the following Physicians appointed temporarily to Vaccinating Corps: Drs. F. Heuel, T. J. Janeway, J. R. Healy, E. P. Williams, A. Strong, E. A. Maxwell, J. L. Perry, W. P. Ackerman, A. P. Dalrymple, J. L. Adams, H. G. McMasters, J. C. Conover, J. J. Brownlee, J. B. Read, S. A. Stimson, J. W. Robie, J. E. M. Lordly, Chas. Laight, S. H. Dessau, Frank Bosworth.

July 23—John McCauley, G. Alvord, John H. Fowler, and Francis Reilly, appointed Inspectors of Fruit.

August 3—Services of Dr. August Assenheimer dispensed with.

September 14—Services of John McCauley, John H. Fowler, Francis Reilly, and Elisha Alvord, dispensed with.

October 5—Services of C. Y. Hammon, J. J. McNally, and Michael Murphy, dispensed with from and after October 15, 1875; services of Dr. Guy D. Daly dispensed with from and after October 15, 1875.

October 12—Resignation of Francis McDonald, Messenger.

October 19—John McCauley, appointed Clerk.

December 28—Services of Dr. Wilbur F. Lane dispensed with.

As usual, the Board has been fortunate in its choice of inspectors and employees assigned to this Bureau, and with scarcely an exception they have performed their delicate duties with promptness and discretion. The large number of cases of contagious diseases with which we have had to deal, many of them requiring stringent measures, such as domiciliary visits; the removal of over 3,000 variolous patients from their homes, and the necessary intrusion of the Vaccinating Corps into the families of the ignorant and prejudiced, have called for much patience, tact and ingenuity, and occasionally some personal risk has been incurred. I have the satisfaction of testifying to the alacrity shown on all hands, and to particularize the faithful efficiency of the cleric force of this Bureau.

Disinfecting Corps.—This Corps, under the charge of H. Endemann, Ph.D., has, as usual, done good service. In June, July, August and September of 1874 and 1875, it was increased by the addition of a number of laborers in order to meet the special wants of the summer months. During that time they disinfected 50,650 privies, going over the same ground several times, of course; 5,907 yards, 2,685 cellars, and 4,212 miles of street gutters. At the height of the epidemic of small-pox, the Corps distributed 30,000 notices of vaccination in the quarters where that disease prevailed. The permanent Corps have made 6,411 visits to houses infected with contagious diseases, performing partial disinfection* in 1,756 cases, and thorough disinfection in 3,680 others. They have removed 2,708 patients to the hospital and 161 dead bodies to the morgue.

The following circular, containing directions for the proper isolation and disinfection of contagious diseases, has been widely distributed:

HEALTH DEPARTMENT,

OFFICE, 301 MOTT STREET.

Sanitary Regulations against Small-pox, Scarlatina, Measles and Diphtheria.

Every case must be reported to the Sanitary Superintendent upon its first recognized appearance.

Care of Patients.—The patient should be placed in a separate room and kept there until your physician determines that the danger of contagion has passed; and no person except the physician, nurse or mother should be allowed to enter the room, or to touch the bedding or clothing used in the sick room, until they have been thoroughly disinfected.

Infected Articles.—All clothing, bedding, or other articles, not absolutely necessary for the use of the patient, should be removed from the sick room. Articles used about the patient, such as sheets, pillow-cases, blankets or cloths, should not be removed until they have been disinfected, by placing them in a tub with the following disinfecting fluid: 8 ounces of sulphate of zinc, 1 ounce of carbolic acid, 3 gallons of water.

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* The term "partial disinfection" applies where the patient is still in the room, and includes the disinfection of the dejecta or sputa, and of such clothing as is about to be taken from the room. Partial disinfection is performed by the attendants on the patients, who receive disinfectants and instructions from the Corps.

"Thorough disinfection" consists chiefly of fumigation with sulphurous acid, and the soaking of the clothing of the patient in a disinfecting fluid, to be described in Dr. Endemann's report. Articles of furniture, bedding, etc., which from peculiar circumstances cannot be properly disinfected, are removed from the premises, and either destroyed or forwarded for use at the Riverside Hospital.

They should be soaked in this fluid for at least one hour, and then placed in boiling water for washing.

Feather beds and pillows, hair pillows and mattresses, and flannels or woolen goods, require fumigation, and should not be removed from the sick room until after this has been done. Whenever the patient is removed from the sick room, notify the Sanitary Bureau, when the Disinfecting Corps will, as soon as possible thereafter, perform the work of fumigation.

All the vessels used for receiving the discharges of patients should have some of the same disinfecting fluid constantly therein, and, immediately after use by the patient, be emptied and cleansed with boiling water. Water-closets and privies should also be disinfected daily with the same fluid, or a solution of chloride of iron, one pound to a gallon of water, adding one or two ounces of carbolic acid.

All straw beds should be burned, but should not be removed from the sick room without a permit from this Department. They will be removed by the Disinfecting Corps.

It is advised not to use handkerchiefs for cleansing the nostrils and mouth of the patient, but rather soft rags, which should be immediately thereafter burned.

The ceilings and side walls of the sick room, after removal of patient, should be thoroughly cleaned and lime-washed, and the wood-work and floor thoroughly scrubbed with soap and water.

By direction of the Health Department,

WALTER DE F. DAY, M. D.,
Sanitary Superintendent.

REPORT OF CONTAGIOUS DISEASES FOR 1874–1875.

Total Number of Cases of Contagious Diseases reported at the Sanitary Bureau, from May 1, 1874, *to December* 31, 1875 (20 *months*).

Total number of cases of Typhus Fever reported	99
“ “ Typhoid Fever reported	996
“ “ Scarlet Fever reported	3,250
“ “ Cerebro-spinal Meningitis reported	241
“ “ Measles reported	1,514
“ “ Diphtheria reported	7,077
“ “ Small-pox reported	4,648

SMALL-POX.

Summary for 20 *months, from May* 1, 1874, *to December* 31, 1875.

Total number of cases reported	4,648
Total number of houses in which cases occurred	3,350
Total number of houses in which 2 cases occurred	417
“ “ 3 “	134
“ “ 4 “	66
“ “ 5 “	27
“ “ 6 “	12
“ “ 7 “	8
“ “ 8 “	9
“ “ 9 “	3
“ “ 10 “	1
“ “ 17 “	1

Streets Containing the Largest Number of Cases.

Allen street	35
Attorney street	36
Avenue A	69
Avenue B.	23
Avenue C	18
Baxter street	11
Broome street	50
Cherry street	9
Chrystie street	52
Christopher street	10
Clinton street	40
Columbia street	12
Delancey street	52
East Houston street	41
Elizabeth street	12
Eighth avenue	25
Essex street	53
Eleventh avenue	24
Eldridge street	48
East Fourth street	53
East Eighth street	12
East Ninth street	26
East Tenth street	10
East Eleventh street	46
East Twelfth street	17
East Thirteenth street	20
East Fifteenth street	10
East Sixteenth street	11
East Twenty-first street	14
East Twenty-ninth street	25
East Thirty-second street	12
East Thirty-fifth street	10
East Thirty-ninth street	17
East Forty-fifth street	11
East Forty-sixth street	11
East Forty-seventh street	19
East Forty-eighth street	19
East Forty-ninth street	10
East Fifty-second street	12
East Fifty-third street	10
East Fifty-fourth street	24
East Fifty-fifth street	15
East Fifty-sixth street	13
East Fifty-ninth street	10
East Sixty-third street	12
East Sixty-sixth street	13
East Seventy-fourth street	11
East Seventy-sixth street.	10
East One Hundred and Nineteenth street	15
East One Hundred and Twenty-first street	10
Fifth street	72
First street	23
First avenue	190
Forsyth street	46
Fourth avenue	12
Greene street	11
Greenwich street	27
Henry street	10
Hester street	15
Leonard street	11
Ludlow street	51
Madison street	11
Mott street	61
Mulberry street	31
Ninth avenue	38
Norfolk street	25
Orchard street	57
Pitt street	31
Ridge street	22
Rivington street	34
Second avenue	107
Second street	93
Seventh street	47
Sheriff street	26
Sixth street	85
Sixth avenue	10
South Fifth avenue	13
Stanton street	56
Seventh avenue	11
Suffolk street	25
Sullivan street	12
Tenth avenue	62
Third street	98
Third avenue	132
Thompson street	34
West Houston street	12
West Thirteenth street	10
West Fifteenth street	10
West Sixteenth street	18
West Twenty-fifth street	16
West Twenty-seventh street	10
West Thirty-first street	9
West Thirty-fifth street	9
West Thirty-eighth street	12
West Thirty-ninth street	28
West Forty-third street	11
West Forty-fourth street	11
West Forty-sixth street	11
West Fifty-third street	12
West Fifty-fourth street	17
Water street	13
Willett street	22
William street	13

Houses Containing the Largest Number of Cases.

152 Attorney street	4
164 “	4
159 “	4
154 “	4
325 Broome street	4
282 “	4
203 “	4
219 “	7
97 Bayard street	8
101 Cannon street	7
220 Cherry street	4
47 Christopher street	4
203 Chrystie street	8
175 Clinton street	5
177 “	4
261 Delancey street	4
124 “	4
383 East Houston street	4
363 “	4
213 East Fourth street	5
345 “	8
332 East Ninth street	7
528 East Eleventh street	5
408 “	7
602 “	8
517 East Twelfth street	4
524 “	4
338 East Thirty-fifth street	5
317 East Thirty-ninth street	4
229 East Forty-fifth street	5
204 East Forty-seventh street	4
320 “	6
428 East Fifty-first street	4
327 East Fifty-fourth street	7
246 East Fifty-fifth street	5
248 “	5
Northeast corner Fifty-eighth street and Fourth avenue	5
206 East Sixty-third street	5
406 East Sixty-sixth street	6
338 “	5
219 East Seventy-fourth street	4
South side Seventy-sixth street, corner Second avenue	5
Northeast corner Seventy-seventh street and Third avenue	4
204 East Eightieth street	4
167 Eldridge street	4
33 “	4
790 Eleventh avenue	8
178 Essex street	4
170 “	4
147 Essex street	6
145 Forsyth street	8
416 Fifth street	4
433 “	4
191 First street	4
842 First avenue	4
756 “	4
975 “	5
300 “	6
1143 “	4
757 “	4
489 Greenwich street	4
296 Henry street	4
147 Ludlow street	5
49 “	5
47 “	4
150 “	4
162 “	5
121 Lewis street	4
66 Leroy street	5
215 Mott street	4
784 Ninth avenue	7
76 Orchard street	6
185 “	6
189 “	6
102 Pitt street	7
104 “	10
129 Perry street	5
248 Rivington street	9
1112 Second avenue	4
1433 “	8
233 Second street	4
199 “	7
223 “	5
226 “	4
251 “	9
148 Seventh street	4
202 “	4
97 “	4
99½ St. Mark's place	5
316 Sixth street	4
530 “	4
404 “	5
320 “	5
515 “	6
501 “	6
537 “	8
42 Stanton street	4
153½ “	5
66 Sullivan street	4
27 Norfolk street	8
1367 Third avenue	4

Houses Containing the Largest Number of Cases—(Continued).

214 Third street	4
517 Tenth avenue	4
192 “	4
756 “	5
661 “	5
One Hundred and Fiftieth street, east of Retreat avenue	4
South side Tinton avenue, third house south One Hundred and Fifty-first street	4
535 West Twenty-first street	5
439 West Twenty-fifth street	4
435 “	4
405 West Thirty-third street	4
143 West Thirty-fifth street	4
341 West Thirty-eighth street	4
431 West Thirty-third street	4
339 West Thirty-ninth street	4
332 West Forty-eighth street	4
440 West Fifty-third street	4
505 West Fifty-fourth street.	9
Corner Fifty-seventh street and Seventh avenue	4
North side Seventy-ninth street, 300 feet west of Tenth avenue	6
South side Eighty-first street, between Ninth and Tenth avenues	5
609 Water street	6
264 West Houston street	4
263 William street	8

NATIONALITY.

Germany	1,532
United States	1,470
Ireland	541
England	86
Scotland	4
Italy	35
Bohemia	32
France	36
Sweden	11
Spain	1
China	1
Unknown	899

AGES.

Under 5 years of age	1,150
Between 5 and 10 years	342
Between 10 and 20 years	704
Between 20 and 40 years	1,773
Between 40 and 60 years	363
Over 60 years	42
Ages not ascertained	274

DISPOSAL OF CASES.

Number of cases removed to hospital	3,207
“ isolated at their homes	633
“ absconded	139
“ first reported dead	540
“ found after recovery	129
“ sent to hospital residing out of the city	20
Number of vagrants (no residence)	62
Cases occurring on shipboard	8

HOSPITAL CASES.

Bellevue Hospital	7
Park Hospital	2
Mount Sinai Hospital	7
St. Francis' Hospital	14
Ward's Island Hospital	3
Charity Hospital	1
Roosevelt Hospital	3
Colored Home	4
German Hospital	1
Infants' Hospital	1
Nursery and Child's Hospital	7
St. Luke's Hospital	1
Deaf and Dumb Institution	21
Randall's Island Hospital	1
St. Joseph's Orphan Asylum	1
Fourth District Court	1
Tombs	1
Reception Hospital	25

In filling out the following blank, which is required of the Inspectors in all cases of small-pox, the following facts were ascertained regarding the vaccination of the 4,648 reported cases. Of these 2,351 had been vaccinated in infancy only; 620 had not been vaccinated at all. The history of the remainder could not be satisfactorily ascertained:

SANITARY BUREAU, HEALTH DEPARTMENT,
No. 301 MOTT STREET,
NEW YORK, 187

To W. DE F. DAY, M. D., *Sanitary Superintendent:*

SIR—I have the honor to report that I have this day visited..........................
aged................ ....whom I found at No.........................street, sick
with.........................under the following circumstances:
What stage of disease?...
No. of persons in family?....................No. of families in house....................
How long resident in house?...
Previous residence...
Character of premises, and how occupied...
Is there other sickness in the house? What?...
What ordered and done by Inspector?...
What sanitary measures necessary...
Successful. Unsuccessful.
* When vaccinated?...
Nationality?...
Name and address of Medical Attendant?...
How long in charge of the case?...
.................................*Sanitary Inspector.*

Typhoid Fever.—As will be seen by the foregoing tabulated statement, the total number of reported cases reached 996. Those occurring in tenement houses were, as far as possible, visited by inspectors, with a view to ascertain the existence of unsanitary conditions which might aggravate the disease, and when these were found, complaints were made against them in the ordinary manner and they were corrected. In special cases disinfection was performed, and in others disinfectants for the *dejecta* were furnished gratis.

Scarlet Fever.—The number of reported cases was 3,250. Where it was possible to do so, disinfection, and in some few cases fumigation was performed, but the prevalence of small-pox, a much graver disease, prevented us from giving to scarlatina the attention we could have desired.

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* Special attention to accurately report number of times and dates, and to enter under appropriate heads, is required.

Diphtheria.—In the autumn of 1874 diphtheria became so prominent that the Board directed me to transmit to those in charge of cases of this disease copies of the following tract:

DIPHTHERIA.

HEALTH DEPARTMENT,
NEW YORK, December 1, 1874.

The following report of the Sanitary Committee of the Board of Health upon diphtheria is approved and published by the Board:

MODE OF ATTACK.

Diphtheria is caused by the inoculation of the air passages with the diphtheritic poison, which, from this point infects the whole system; the local inflammation is attended by the formation of membrane (exudation); the fever and general symptoms are the result of this local infection.

HOW IT SPREADS.

Diphtheria is therefore a contagious disease (not perhaps as marked as scarlet fever) induced by contact with persons and objects infected. It may be diffused by the exhalations of the sick, by the air surrounding them, or directly by the exudation, communicated in the act of kissing, coughing, spitting, sneezing, or by the infected articles used, as towels, napkins, handkerchiefs, etc. The poison clings with great tenacity to certain places, rooms, and houses, where it may occasion cases after the lapse of months.

SYMPTOMS.

In ordinary attacks the poison begins to act the moment it lodges upon the tissues, but like a vaccination, causes but slight sensible effects in from two to five days; then there is marked prostration, dryness of the throat, and pricking pain in swallowing; the throat becomes red and patches of white exudation appear and the glands of the neck swell. In mild cases these symptoms subside on the third or fourth day from their appearance; if more severe, these symptoms may be prolonged; if unfavorable, the fever increases, the local inflammation spreads, and exhaustion rapidly follows.

PREDISPOSING CONDITIONS.

The Person.—Diphtheria attacks by preference children between the ages of one and ten years (the greatest mortality being in the second, third and fourth year); children of feeble constitution, and those weakened by previous sickness; and those suffering from catarrh, croup, and other forms of throat affections.

Social Relations.—All classes are liable to diphtheria where it is prevailing, but those suffer most who live on low, wet grounds; in houses with imperfect drains or surrounded by offensive matters, as privies, decaying animal and vegetable refuse; in damp rooms, as cellars; in overcrowded and unventilated apartments.

Seasons.—Diphtheria is not affected by heat or cold, drought or rain.

PRECAUTIONS.

(*a.*) *The Dwelling or Apartment.*—Cleanliness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance where any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth around and in the house should be thoroughly removed; cellars and foul areas should be cleaned and disinfected; drains should be put in perfect repair; dirty walls and ceilings should be lime-washed, and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants; ceilings lime-washed, and wood-work painted; the carpets, bed-clothing, upholstered furniture, etc., exposed many days to fresh air and the sunlight (all articles which may be boiled or subjected to high degrees of heat should be thus disinfected); such rooms should be exposed to currents of fresh air for at least one week before reoccupation.

(*b.*) *When Diphtheria is Prevailing.*—No child should be allowed to kiss strange children nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well-contrived method of propagating other grave diseases than diphtheria); nor should it sleep with, nor be confined to rooms occupied by, or use articles, as toys, taken in the mouth, handkerchiefs, etc., belonging to children having sore throat, croup, or catarrh. If the weather is cold the child should be warmly clad with flannels.

(*c.*) *When Diphtheria is in the House or in the Family.*—The well children should be scrupulously kept apart from the sick, in dry, well-aired rooms, and every possible source of infection through the air, by personal contact with the sick, and by articles used about them or in their rooms, should be rigidly guarded. Every attack of sore throat, cough, and catarrh should be at once attended to; the feeble should have invigorating food and treatment.

(*d.*) *Sick Children.*—The sick should be rigidly isolated in well-aired (the air being entirely changed at least hourly), sunlighted rooms, the outflow of air being, as far as possible, through the external windows, by depressing the upper and elevating the lower sash, or a chimney heated by a fire in an open fire-place; all discharges from the mouth and nose should be received into vessels containing disinfectants, as solutions of carbolic acid or sulphate of zinc; or upon cloths which are immediately burned; or if not burned, thoroughly boiled, or placed under a disinfecting fluid.

By order of the Board,
CHARLES F. CHANDLER,
President.

EMMONS CLARK, *Secretary.*

I was at the same time directed to detail two inspectors to report on charts provided for that purpose, the following facts relating to all fatal cases of diphtheria reported to the Bureau of Vital Statistics, viz.:

Name of deceased, residence, number of families in house, population of the house, number in the family of deceased, cubic air space to each person, sanitary defects, history of person as to age, place of birth, previous residence, married or single, hereditary diseases, previous diseases, previous health, history of disease, duration, order of succession of symptoms, progress of case, general and special treatment, pathology, causes, alleged, determined, predisposing, exciting, aggravating.

Soon after this the entire corps of Inspectors and Assistant Inspectors took part in this service, so far as time would permit.

The following letter, with the above-mentioned chart, was sent to each physician reporting a case, the inspectors afterwards visiting the premises, with a view of informing themselves of their sanitary condition :

NEW YORK, , 1875.

DEAR DOCTOR—The Board of Health is about to undertake an inquiry into the probable causes of the present epidemic of diphtheria, and they confidently trust that in pursuing such investigation, they may rely upon the sympathy and co-operation of the medical profession. May I request you to examine the blank which I leave, and to note upon it any information, however scanty, which you may now possess in regard to the case at No. street. I will afterwards endeavor to obtain the other particulars myself. I will call for the blank in three days.

Yours, respectfully,

———, Inspector,
No. ——— street,

To Dr. ———

The following extract from a report of Dr. E. H. Janes, the Assistant Sanitary Superintendent, is based upon an analysis of these charts :

In attempting to analyze the reports of 301 cases, we can, of course, but approximate to the facts as they really are, and trace but a portion of the cases to the real cause, at the same time making all due allowance for conflicting circumstances, and the variety of opinions as expressed by attending physicians and Sanitary Inspectors. In each case investigated, the Inspector, whenever expressing an opinion, has given the cause which appeared to bear a direct relation to the case, not neglecting to mention every condition or circumstance which could modify or aggravate the disease.

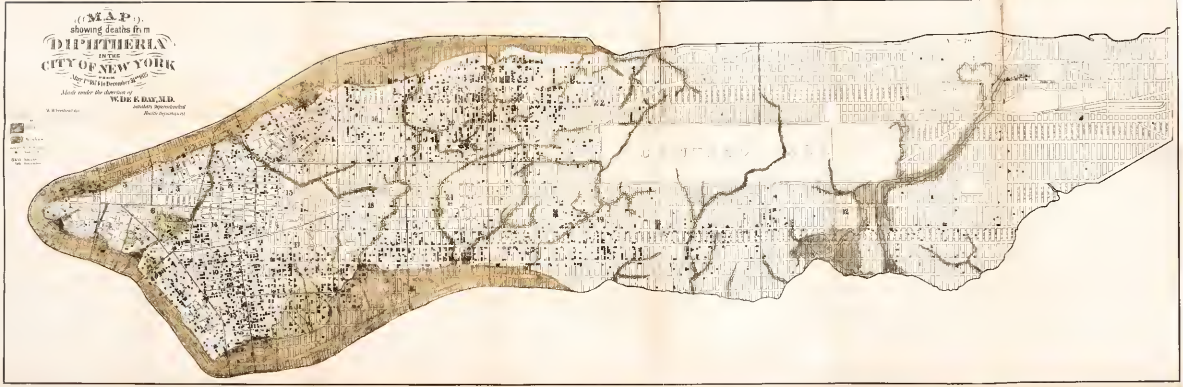
By carefully reviewing these reports, we find that 40 of the cases are traced directly to defective house drainage, including bad trapping, unventilated waste and soil-pipes, leaking pipes, damp cellars, offensive water-closets, and filthy privies. Overcrowding, with want of proper ventilation, is reported as being partially or entirely responsible for 47 cases, 15 of which were confined to spaces of less than 300 cubic feet for each individual, including both living and sleeping rooms, and making no allowance for the presence of furniture, bedding, clothing, etc., all of which, by absorbing and retaining crowd-poison, become active agents in developing cases of whatever epidemic or contagious disease may be prevailing. This, I believe, is as far as we can regard local conditions as being the cause of a disease introduced by direct contagion, or through some mysterious atmospheric or telluric agency ; and, while we have no control over the latter, many lives may be saved by preventing exposure to contagion and by attending well to local conditions. Of these 301 cases, 56 were believed to be traced to direct contagion, without any reference to the neglect of sanitary measures ; and these probably form but a small part of the number of cases that owe their existence to this cause, as must be obvious to all, now that the intensity and persistence of the diphtheritic contagion are so generally acknowledged. This again appears to be the fact, when we consider the ages of those who suffer from the disease, the greatest number being between five and ten years of age, the age at which children are confined during a good portion of the day in our crowded primary schools. Doubtless, in these schools, there are many cases, either in the incipient stage, or of so mild a type as to escape detection before the disease is communicated to others, which aid very materially in spreading the infection and multiplying the number of victims; and surely there is no condition which is more favorable to the development of contagious and infectious diseases, than where large numbers of children are crowded together in an atmosphere laden with the impurities which are continually escaping from the skin and lungs of each, and with facilities for ventilation so imperfect as are afforded to most of our primary schools.

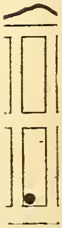
The age which gave us the next greatest number of cases was that between three and five years, too young to attend school, but yet intimately associated with the older ones, when at home, in their plays, or sleeping together; and thus exposed often to unseen danger, the seeds of the disease are planted before the alarm is given.

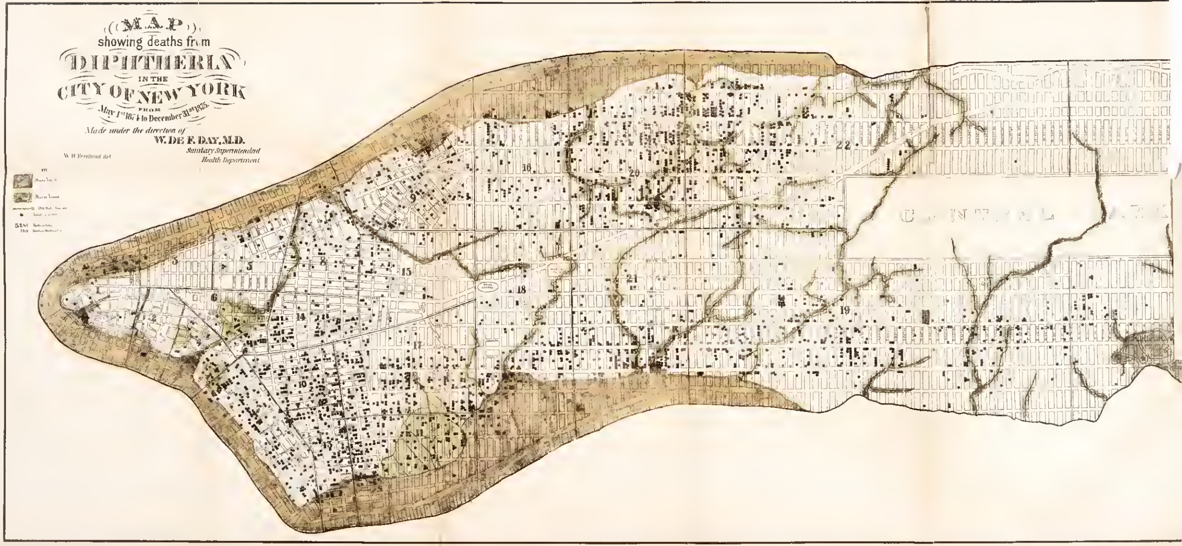
Concerning the result of these investigations, I cannot say that they have taught us much in relation to the cause of the disease; but they brought to light very many unsanitary conditions which were corrected, and thus many causes which tended to excite or aggravate the disease were removed. With a full appreciation of the importance of attending well to local sanitary requirements, and of the relation which a neglect of these requirements will always bear to the spread and severity of epidemic and contagious diseases, I think we must look beyond imperfect sewers and broken house-drains for the primary cause of diphtheria. Like scarlatina and small-pox, it appears in the best of localities, where sewers are unknown, where the atmosphere is pure and the water uncontaminated. It takes the lofty as well as the lowly, it spares neither the rich nor the poor; its ravages are witnessed at the sea-side and in the crowded city, on the mountain and in the valley. And whenever an epidemic visits us, although with our present knowledge we may not be able to "stamp it out" as we do small-pox, by vaccination, we may, by attention to sanitary measures, deprive it of its greatest power, and thus remove the aggravating if we cannot control the primary cause.

In November, 1874, the Board requested Dr. E. Curtis to investigate the causes and nature of diphtheria, by means of micro-pathological examinations and otherwise, and at his request, early in December of the same year, Dr. T. E. Satterthwaite was associated with him in the investigation. The very elaborate and interesting reports of these gentlemen will be found further on in this volume. In order to show the localities where diphtheria prevailed, the following map has been prepared, and to guard against mistakes in diagnosis, to which this disease is peculiarly liable, only fatal cases have been selected. After they had been placed on the blocks, the old water-courses and made-ground were delineated in accordance with the map by Egbert L. Viele.

An examination of this map will show that the mortality was most severe in the most thickly populated districts, such as the Twentieth, Tenth, Eleventh, Thirteenth and Seventeenth wards, and the eastern portion of the Twenty-first. It will be seen, also, that there is no relation between these cases and the made ground or old water-courses.


MAP
showing deaths from
DIPHTHERIA
IN THE
CITY OF NEW YORK
FROM
May 1st 1874 to December 31st 1875
Made under the direction of
W. DE F. DAY, M.D.
Sanitary Superintendent
Health Department
W. H. Benedict del.
22
20
21
19
18
16
15
14
12
9
8
6
5
3




MAP
showing deaths from
DIPHTHERIA
IN THE
CITY OF NEW YORK
FROM
May 1st 1874 to December 31st 1875.
Made under the direction of
W. DE F. DAY, M.D.
Sanitary Superintendent
Health Department
W. H. Fernhead del
Marsh Land
5241
180
CENTRAL PARK
1
2
3
4
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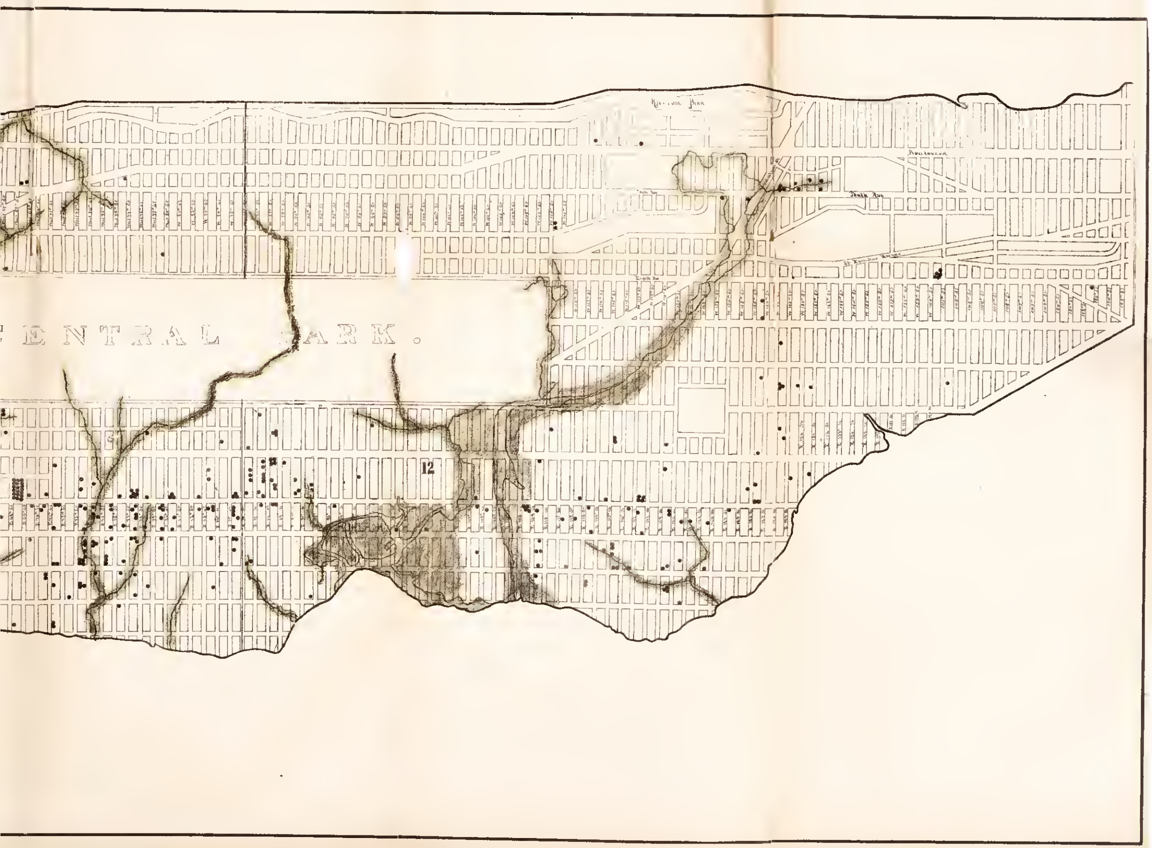
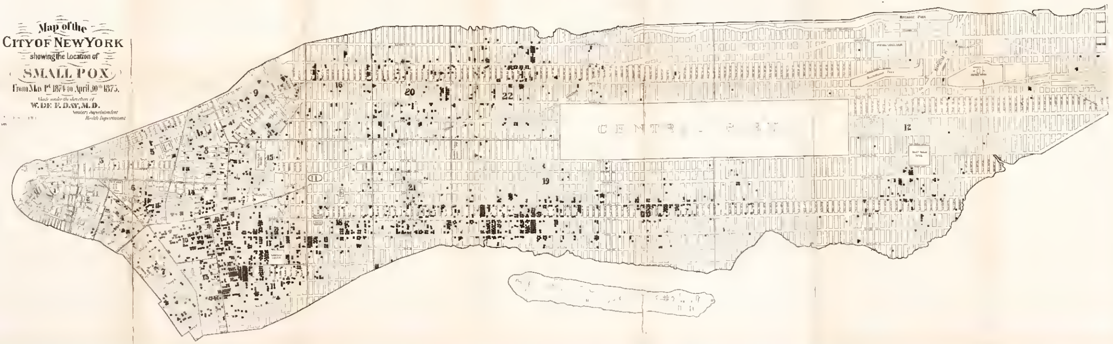
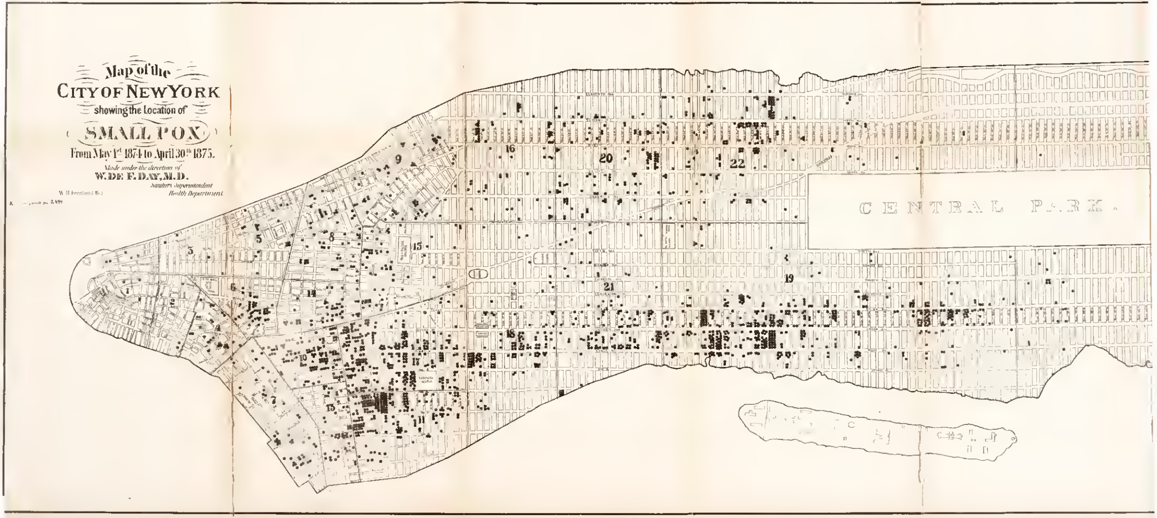

Riverside Park
Boulevard
Tenth Ave
Eighth Ave
St. Nicholas Avenue
ENTRAL PARK.
12



Map of the
CITY OF NEW YORK
showing the Location of
SMALL POX
From May 1st 1874 to April 30th 1875.
Made under the direction of
W. DE F. DAY, M.D.
Sanitary Superintendent
Health Department



Map of the CITY OF NEW YORK showing the Location of SMALL POX

From May 1st 1874 to April 30th 1875.

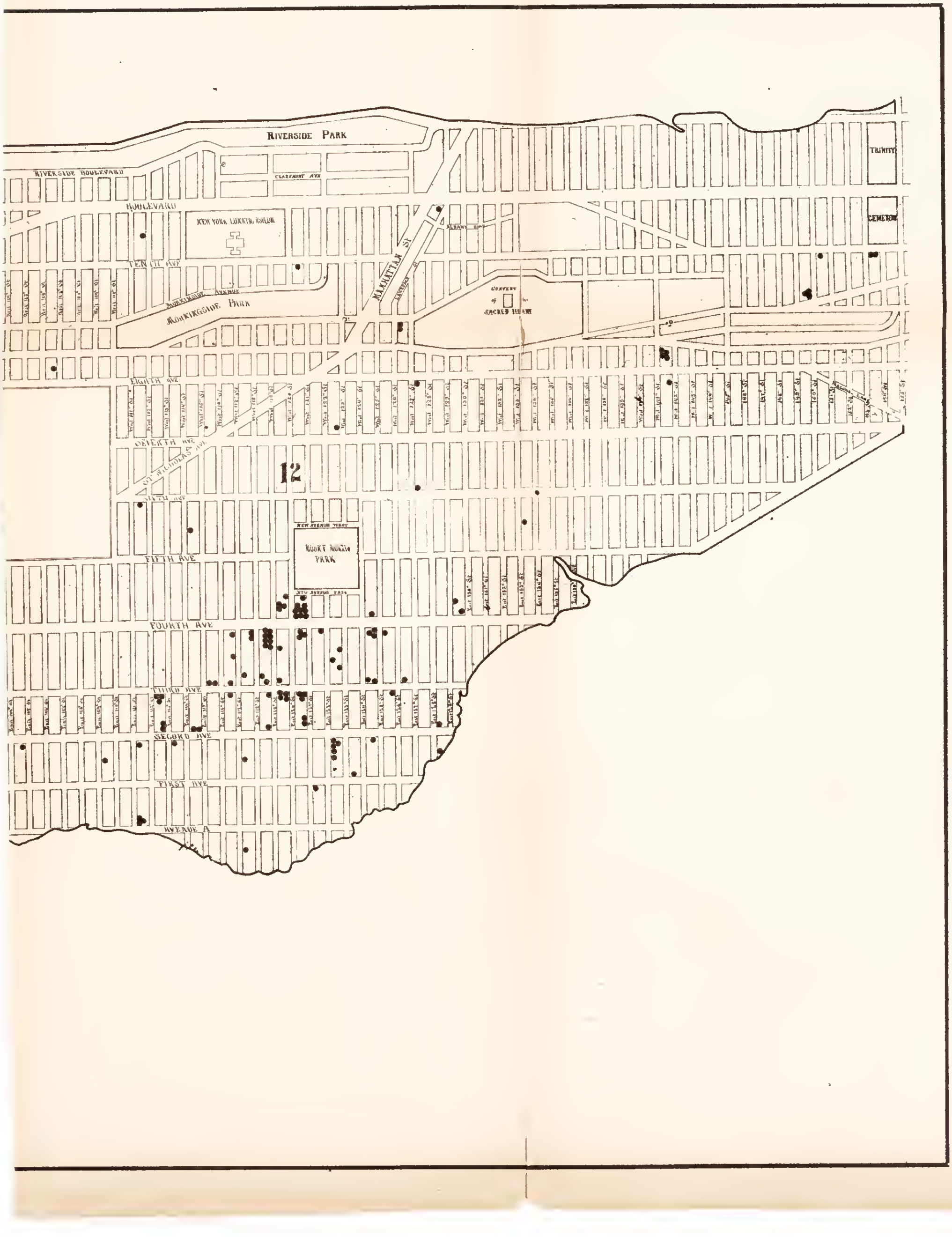
Made under the direction of

W. DE F. DAY, M.D.

Sanitary Superintendent

Health Department

W. H. Fernbond Del.


RIVERSIDE PARK
RIVERSIDE BOULEVARD
CLAREMONT AVE
BOULEVARD
NEW YORK LUNATIC ASYLUM
TENTH AVE
MORNINGSIDE AVENUE
MORNINGSIDE PARK
MANHATTAN ST
LAWRENCE ST
ALBANY ROAD
CONVENT of the SACRED HEART
TRINITY
CEMETERY
EIGHTH AVE
SEVENTH AVE
ST. NICHOLAS AVE
12
SIXTH AVE
NEW AVENUE WEST
MOUNT MORRIS PARK
NEW AVENUE EAST
FIFTH AVE
FOURTH AVE
THIRD AVE
SECOND AVE
FIRST AVE
AVENUE A

Deaths by Small-pox in the City of New York, from 1804 *to* 1876.

YEAR.	DEATHS.	CASES.	POPULATION.	Total Mortality from all Causes.	YEAR.	DEATHS.	CASES.	POPULATION.	Total Mortality from all Causes.
1804......	169	......	......	......	1843....	117	......	....	......
1805......	62	......	......	......	1844....	21	......	....	......
1806......	48	......	......	......	1845....	425	......	371,223	......
1807......	29	......	......	......	1846....	141	......	....	......
1808......	62	......	......	......	1847....	53	......	....	......
1809......	66	......	......	......	1848....	544	......	....	......
1810......	4	......	96,373	......	1849....	326	......	....	......
1811......	117	......	......	......	1850....	231	......	515,547	......
1812......	21	......	......	......	1851....	562	......	....	......
1813......	2	......	......	......	1852....	497	......	....	......
1814......	2	......	95,519	......	1853....	656	......	....	......
1815......	94	......	......	......	1854....	611	......	....	......
1816......	179	......	......	......	1855....	101	......	629,810	......
1817......	14	......	......	......	1856....	388	......	....	......
1818......	19	......	......	......	1857...	423	......	....	......
1823......	18	......	......	......	1858....	492	......	....	......
1824......	394	......	......	......	1859....	60	......	....	......
1825......	40	......	166,086	......	1860....	274	......	805,358	.....
1826......	58	......	......	......	1861....	599	......	....	......
1827......	149	......	......	......	1862....	268	......	....	......
1828......	93	......	......	......	1863....	73	......	....	......
1829......	16	......	......	......	1864....	382	.....	....	......
1830......	176	......	197,112	......	1865....	664	......	726,386	24,843
1831......	224	......	......	......	1866....	26	......	....	26,818
1832......	89	......	......	......	1867....	19	......	....	23,159
1833......	25	......	......	......	1868....	25	......	....	24,889
1834......	233	......	......	......	1869....	203	......	....	25,167
1835......	351	......	268,089	......	1870....	293	1,580	942,229	27,175
1836......	173	......	......	......	1871....	805	2,139	975,000	26,976
1837......	164	......	......	......	1872....	929	2,380	1,000,000	32.647
1838......	91	......	......	......	1873....	117	352	984,752	29,084
1839......	68	......	......	......	1874....	484	1,462	1,030,782	28,727
1840......	232	......	312,710	......	1875....	1,280	3,397	(Census.) 1,046,037	30,709

SMALL-POX.

The decided increase in this disease was early foreseen, and measures were taken to meet it. In a report on the organization of a permanent Vaccinating Corps, which by the Board's directions I had the honor to make in 1873, and which is to be found in the annual report for that year, I observed that "the poor did not avail themselves of the dispensaries for vaccination to any important degree, and that an inspection of a certain number of tenement houses disclosed the fact of an unusually large proportion of unvaccinated children." The German tenement house population held their old-country prejudice against vaccination in any month but May, and their infants were thus deprived of the protection of vaccination, often for nearly a year. These circumstances prepared a fertile field for variola when chance should sow the seed. Attention is asked to the prevalence of small-pox among the German population, that nationality contributing 1,532 to the total number of cases. This is due to their tenacious prejudice in favor of May as the only month for vaccinating, so that an infant, although exposed to variola, may be unprotected until the favorite month comes around. How suicidal this prejudice is, will be seen when we consider that the mortality chiefly strikes young children, 1,150 having died under five years of age.

There has been no change in our handling of small-pox since the last report, excepting that a coupé has been provided for the removal of the better class of patients; that the Small-pox and Reception Hospitals have come under the charge of the Board, and that a permanent Vaccinating Corps has been established.

The isolation of this disease is impracticable in hotels, tenements, boarding-houses and shanties. This opinion has been reached by a large experience.

The disease did not subside during the summer of 1874, and as small-pox prefers the winter months, grave apprehensions of its continuance were excited. In September of that year the hospital was so crowded that those in charge were averse to admitting the relative of a child unless such relative was its mother. This caused cases to be concealed in crowded tenement houses, where isolation is impossible. With the consent and hearty co-operation of the Commissioners of Charities and Corrections, and in conformity with the law, the Board of Health took charge of the *Small-pox and Reception Hospitals*

January 20, 1874. The name of the former was changed to the "Riverside Hospital"—it was connected with this office by telegraph. Dr. J. J. Delaney was continued in charge, Sisters of Charity were appointed as nurses, and the entire service was placed under the supervision of Dr. E. H. Janes, the Assistant Sanitary Superintendent of this Bureau.

During the epidemic, cards urging vaccinating were widely distributed among the tenement houses and nailed up in their halls. They were also displayed in the cars of several street lines.

The following circular was at the same time issued to physicians :

HEALTH DEPARTMENT, NO. 301 MOTT STREET,
NEW YORK, June 8, 1875.

To the Physicians of New York:

Small-pox at present prevails to a greater extent than ever before, as regards actual numbers, perhaps not proportionally. For the past three weeks it has been on the increase, and on the week ending May 22d, 111 cases were reported, more than for any of its predecessors. This was probably due to the moving on May 1st disseminating the disease.

From October 1, 1874, to May 22, 1875, 2,335 cases were reported; a certain unknown number are unreported and escape detection. From October 1, 1874, to May 15, 1875, 834 cases died of this disease. The localities where it is at present most prevalent are districts bounded by Division street on the south, Thirteenth street on the north, Bowery and Second avenue on the west, and Lewis street and Avenue D on the east; Ninth and Tenth avenues, between Fifteenth and Sixteenth streets; Eighth and Ninth avenues, between Thirty-ninth and Fortieth streets; Tenth and Eleventh avenues, between Forty-third and Forty-seventh streets; First avenue, between Forty-sixth and Forty-seventh streets.

This Board has maps prepared, under the direction of the Sanitary Superintendent, and if the observation of the places where the disease prevails will help you in practice, they will gladly exhibit them to you.

The Board would urge on you the importance of vaccination and re-vaccination to as great an extent as possible in view of the above facts.

The Board, at its last meeting, passed the following resolution :

That in all cases where insufficient excuses are made for declining vaccination, the vaccinator or inspector take the name and address of the people and of the family physician, and notify the physician of the fact.

The Board hopes that you will urge vaccination and perform it under these circumstances.

By order of the Board.

C. F. CHANDLER,
President.

EMMONS CLARK,
Secretary.

The following report upon the Small-pox or Riverside Hospital, from the pen of Dr. E. H. Janes, the Assistant Sanitary Superintendent, will be read with interest.

RIVERSIDE HOSPITAL.

It has been customary, for many years past, to remove patients suffering with this disease to a hospital provided for the purpose, especially patients so situated that they could not be safely isolated at home, including occupants of tenement-houses, boarding-houses, hotels, and, in fact, of all places where the presence of a small-pox patient would endanger the safety of others. The hospital hitherto occupied for this purpose, and until recently known as the Small-pox Hospital, was, prior to January, 1875, under control of the Commissioners of Charities and Correction. On the 20th of January, 1875, it was, by virtue of a law enacted by the Legislature in 1874, transferred to the Health Department, and its name changed to that of "Riverside Hospital," by which name it is at present known.

At the time this hospital came under control of the Health Department, the accommodations consisted of a reception hospital at the river side in front of Bellevue Hospital, where patients are received to await the departure of the boat for Blackwell's Island; a stone building on the south end of Blackwell's Island. in which there is room for 54 beds, not including those occupied by nurses and attendants; and two pavilions, in one of which there is a capacity for 61, and in the other for 80 beds, making in all comfortable accommodations for 195 patients. Over 200 have been accommodated at a time, but that number crowds the institution too much for the comfort, or, I might say, for the safety of the patients, as persons suffering from this disease need plenty of space, with an unlimited supply of fresh air.

Immediately upon taking charge of this hospital, on the 20th of January last, it was decided to reorganize the entire management, and place the institution on as high and broad a basis as our limited means would allow, for which purpose extensive repairs were found to be necessary, as a good deal of the carpenter-work was either defective or worn out; and it was also found that a considerable portion of the furniture was only loaned to the hospital as the property of another Department. It may here be mentioned that one of the first sights which met the eye of the unfortunate patient as the boat neared the dock, was a pile of coffins at the landing place, painfully suggestive of the manner in which some of those just arriving might leave the island at the expiration of their several terms of probation.

In order to relieve the dock of this sadly suggestive picture, the dead-house was enlarged at an expense of $162, thus affording room where these coffins might be stored until needed for use. It was found, however, that this did not abate the evil, and subsequently a small building was erected for the purpose at the dock, since when there has been no complaint of these repulsive sights. The necessity for this improvement is apparent when we are told that coffins containing the bodies of patients dying at Charity Hospital all leave the island for burial from the dock at which our small-pox patients are landed; and it was by no means unusual for these to be deposited at the dock long before the arrival of the boat to take them away.

On making a careful and thorough inspection of these hospital buildings, it was soon discovered that many repairs were necessary. Window-sashes and window-cords were out of order, floors were broken, doors and stairs were in need of repair, sheds and weather-doors were needed for the pavilions, water-closets were out of order, seats and floors broken, and the flushing apparatus imperfect; shelves, tables, cupboards and closets were also needed, besides a large amount of furnishing goods, material for bedding, night-clothes, etc. In addition to the carpenter work, there were needed a new range, new stoves and pipe, repairs to the old range, a full set of range furniture, a good deal of plumbing work, a steam pump, a general supply of hospital furniture, and later in the season it was found necessary to repair the roof of the stone building and that of one pavilion, besides furnishing new leaders, as the old ones were so much worn as to be almost useless. This involved considerable expense, for which I refer to the tabulated statement published elsewhere.

A resident physician, Dr. James J. Delany, was appointed, who still continues in the work, and the services of Sisters of Charity were also secured, that the patients might enjoy all the advantages derived from the labors of thoroughly trained nurses. The system of work-house help hitherto practiced was dispensed with, and a system of paid help adopted, by which more work and better discipline is secured than can possibly be obtained under any system of involuntary servitude. The improvement following this latter change was at once seen in the respect and deference manifested by the one class, as contrasted with the impertinence and profanity which characterize the other.

As the spring advanced, it was found that our accommodations were not equal to our necessities, for during the month of April small-pox numbered more victims than it had during any previous month of the year, there being seventy-nine more admissions to the hospital than there were during the month of March, and eleven more than there were in February. This increase took place during the latter part of the month, and therefore, contrary to what we had expected, the month of May found us with augmented rather than diminished numbers, and still increasing, the admissions for the month being four hundred and eight, or an increase of one hundred and twenty-nine over the number admitted during the month of April. This increase in numbers not only crowded the hospital buildings, but also added largely to the labors and responsibilities of the resident physician, who had already begun to show symptoms of being overworked in the discharge of his arduous duties. It was therefore found necessary to provide for Dr. Delany an assistant, and to increase the number of orderlies and of helpers in proportion to the increased number of patients.

During the months of May and June, the disease manifested itself in a very severe type; the hospital buildings were crowded, and the death rate was heavy. This involved the necessity of doing something at once to increase the accommodations and to relieve the crowding; and as we had neither time nor means to provide an additional building, it was decided to afford the necessary relief by the use of hospital tents. This was without delay effected by the purchase of thirteen tents, which were immediately sent to the island and placed in position, each tent being provided with a well-constructed floor. To these tents convalescents and persons but slightly ill were transferred, thus allowing more room for the very sick in the hospital buildings, rendering them more comfortable, and increasing their chances for recovery.

It was during the months of May, June, and the early part of July that the disease was most prevalent, for it will be seen by the accompanying tabulated statement, that during the quarter ending March 31, there were 551 admissions, and during the quarter ending June 30, there were 929, an increase of 378. After the middle of July there was a marked reduction in the number of cases, the admissions during the quarter ending September 30, being 533, and during the last quarter 414.

Not only did the number of cases diminish, but by analyzing the death record we find that the percentage of deaths also diminished. For instance, the death rate during the three months ending July 31, was 27.19 per cent., while that for the month of July alone, was 23.1 per cent., and for the months of August and September the percentage of deaths was still further reduced, it being only 21.53. This steady decrease in the number of cases, as well as in the proportion of deaths, was encouraging, as it indicated, to some extent at least, that the disease as an epidemic had spent its force, an indication in which we were not disappointed; for although at the approach of cold weather both the numbers and death rate were somewhat increased, the disease did not again show itself with anything like the severity which marked its progress during the first half of the year.

The question may here be properly asked, what could have given rise to the aggravated character of the disease with the approach of warm weather, when from all past experience we reasonably look for an abatement. One fact has been frequently noticed: that the yearly practice of house-hunting and moving, although a time-honored custom with New Yorkers, exposes our citizens to many unseen dangers, and has often been followed by a temporary increase in the spreading of whatever contagious disease may have been at the time prevailing; and especially is this the danger in regard to small-pox and scarlatina, each of which is well known to leave its peculiar poison behind, long after the disease has disappeared. This, I have no doubt will account in some measure for the increase of the disease at that time; but I cannot avoid the impression that the severity of small-pox, and the extent to which it prevailed during the early part of the summer, may have had another deeply rooted cause. And here it must be acknowledged that during the previous winter, the small number of inspectors on duty, constantly overworked as they were in the daily routine of service demanded of them in their enlarged districts, were wholly inadequate to cope with the disease in such a manner as to protect our large city from its ravages; whereas in previous years, whenever there were indications of a threatened pestilence, the inspectorial force has been increased in numbers adequate to the existing emergency. By this system reported cases were early visited, isolated cases were carefully watched, and strict quarantine enforced; concealed cases were sought out and removed, and preventive measures early applied. All this involves an amount of work which cannot be accomplished by a few inspectors whose time is so largely occupied in the discharge of their many other imperative duties; and yet it must be done if we would protect a large community from the ravages of contagion. How nearly these coincident facts are related as cause and effect, or how far a more liberal appropriation would have averted the calamity, is worthy the careful consideration of the political economist as well as of the sanitarian.

The hospital is under the immediate charge of a Resident Physician, whose entire time is devoted to its interests, and who is indefatigable in the discharge of his duties. He has to assist him, one clerk, and as many orderlies and laborers as may from time to time be necessary. The Domestic Department, including the general nursing, is conducted by Sisters of Charity, of whom there are eight in the institution. One is in charge, and she assigns to the others their respective duties, exercising a general supervision over all. Upon one devolves the duty of housekeeper, another has charge of the laundry, and each of the others has charge of a ward, with helpers to assist under her direction. Thus systematized, the work goes on without interruption, one intelligent mind directing the whole and keeping itself informed of each and every department in their minute details. No one can witness the faithfulness and self-sacrifice with which these pious women discharge their respective duties, regardless of their own comfort, and intent only on the welfare of those intrusted to their care, without congratulating the public, especially persons who are unfortunate enough to become inmates of this institution, with the assurance that while there they will ever meet with the kind sympathy and tender care always emanating from the principles of true Christianity.

The spiritual interests of the patients are provided for by the services of a Catholic and a Protestant chaplain, that those adhering to either one of these divisions of the Christian Church may receive the consolations afforded through its officiating servant.

The ordinary hospital diet has been furnished by contract from Charity Hospital, while the "extra diet" and that for the attendants and help is supplied directly by the Health Department. Extra diet for patients consists of eggs, milk, beef tea, beef steak, whisky, in the form of egg nogg or milk punch, rice, tapioca, etc. There is a private arrangement by which those who prefer it can have separate board by the payment of seven dollars per week. With this money such articles of diet as are needed are purchased for the use of such patients. All of the money so paid is expended for supplies, no profit accruing to any one ; but any surplus of supplies so purchased, and not needed for the boarders, is added to the general store for the use of all, thus contributing somewhat towards reducing the current expenses of the institution.

The question now arises, Has the change of management, with the increased expenditure incurred to carry on the institution, had the effect to reduce in any degree the percentage of mortality ? This question cannot be satisfactorily answered by comparing our present death-rate with that of previous years, as we have had, during the past year, to contend, not only with a more than usually severe type of the disease, but have also met with a much larger number of complications than usual, especially pneumonia, which has been very prevalent and fatal, and to which patients suffering with small-pox are very susceptible.

The nearest approximation to which we can arrive towards the solution of this question, is by comparing the mortality of the last three months with that of the three months next preceding. By consulting the accompanying tabulated statement of admissions, discharges and deaths, it will be seen that, when we took charge of the hospital in January, 1875, there were under treatment 155 patients, and that during the year there were admitted 2,427, making in all, 2,582. Of this number 1,801 recovered and returned to their homes, and 691 died; which gives us a death-rate of 26.76 per cent. Now, by consulting the annual report of the Chief of Staff for the year 1874, we find that, up to the 31st day of December there were discharged from the Small-pox Hospital 734, and 285 deaths, which gives a mortality of 27.9 per cent. If we examine still nearer, we find, by the hospital records, that, during the three months ending December 31, 1874, there were 315 discharges, and 143 deaths, giving a mortality of 31.2 per cent. for the three months immediately preceding the change of administration ; while, for the quarter ending March 31, 1875, the death-rate was 29.4 per cent., giving us a small reduction in the percentage of mortality, while the severity of the disease was daily increasing. These death-rates are all heavy, and yet, as we shall presently see, they are not far in excess of what has been suffered in other cities during previous years.

It must be remembered here, that it was in the latter part of the year 1874 that the epidemic began to assume so grave a character, which will account for the greater rate of mortality during the last quarter than during the previous nine months. It was about this time that pneumonia became very prevalent and proved a serious complication with small-pox patients, many of whom were attacked in their convalescent stage, and finally succumbed, this second trial proving too much for their physical endurance. Through the entire winter, patients in the hospital were extremely susceptible to pneumonia, to which fact is due in some degree our large mortality, while, during the summer months, diarrhœa proved to be a troublesome, and often a fatal complication ; and this was especially the case with young and delicate children, very few of this class being able to withstand a severe attack of diarrhœa accompanying small-pox. The severity with which this disease deals with young children, is illustrated in the fact that of the 469 children admitted to the hospital under five years of age, 256, or 55.43 per cent. died ; and of these, 102 were under one year of age, and unvaccinated. As the ages increased, the percentage of deaths diminished ; for we see by the tables, that there were admitted between the ages of five and fifteen, 256, and of these 67 died, or a percentage of 26. Between the ages of fifteen and twenty-five, the death-rate was still lower, the admissions between these ages having been 782, and the deaths 136, or a percentage of 17.39. It may be proper to remark here, that during this decade the system is as well protected by re-vaccination as during any other period of life, and the cases which occur are, most of them, mild and easily managed. During the next twenty-five years of life, the death-rate slowly increased, there having been, between the ages of twenty-five and fifty, 842 admissions, and 194 deaths, a percentage of 23. As people advance in life, they become careless in regard to re-vaccination, and lose in some degree, the protection afforded during their younger days, and hence the disease attacks with greater severity, and the powers of resistance diminishing as age advances, a greater proportion of the cases prove fatal, the percentage of deaths among those admitted over fifty years of age being 26.79.

The good effects of vaccination in modifying the death-rate are seen in this hospital, as in other institutions of the kind, or in private practice. In estimating the relative mortality of the vaccinated and the unvaccinated, we find that among the former the percentage of deaths was 20.09, and of the unvaccinated the rate was 49.38 per cent. There were 156 patients treated, of whom no history could be obtained, and of these, 99 died. These last were probably all unvaccinated, and the 20.09 per cent. fatal cases of the vaccinated included those who had been vaccinated in infancy only, and had neglected to continue the protection by frequent revaccination.

A good deal of discussion has arisen in regard to the relative mortality in hospital and private practice, many physicians quoting their experience in former years, with the disease in a much milder form than has prevailed during the last fifteen months, as arguments in favor of their patients being treated at their homes. With a view to the settlement of this question as nearly as practicable, I have taken pains to collect all of the cases treated at home during the year 1875, including all cases first reported dead, those who have absconded, and concealed cases that have come to our knowledge after recovery, amounting in all to 1,025 cases, of which 517 were fatal, or a percentage of 50.43 ; as near an approximation as our information will afford. Although these figures may not give us the exact percentage of deaths from small-pox in private practice, as there are doubtless, from time to time, concealed cases that never come to our knowledge, yet, the experience of other cities may aid us in the solution of this question.

During the year 1872 there were treated in the Small-pox Hospital at Chicago 572 patients, of whom 145 died, or 25.3 per cent. ; while, during the same period, 1,810 were treated at their homes, of whom 510, or 28 per cent., died. In 1873 the percentage of mortality in the same city was 25 in hospital, and 30.6 in private practice. The percentage of mortality from small-pox in Cincinnati, during the year ending February 29, 1872, was in hospital 22.4, and in private practice 26. In each of these cities the disease was not so frequently attended with the serious complication of pneumonia which has been so prevalent with us during the winter and spring of 1875.

In Philadelphia, during the year 1871, there were returned to the Board of Health 8,114 cases of small-pox, of whom 1,879 died, or a percentage of 23.1. In 1872, there were returned 7,515 cases, of whom 2,585 died, or a percentage of 34.3—a much more severe and fatal epidemic than we are now suffering, notwithstanding their superior sanitary advantages, their extended area in proportion to population, and the entire absence of such crowded tenement houses as disgrace our own city. The percentage of hospital mortality during the epidemic of 1871 and 1872, in Philadelphia, was 31.25.

In comparing hospital mortality with that occurring in private practice, we are compelled to include in the former many cases which properly belong to the latter. In order to illustrate this I must again ask you to refer to the tabulated statement—item, sudden deaths—where it will be seen that 15 died within six hours after admission, 13 died twelve hours after admission, and the whole number that died within forty-eight hours after admission was 126. These were cases that had been concealed and treated at home until death was inevitable, when the physician, to save his reputation with the Board, or the friends, to save the mortification of a coroner's inquest, where there had been no medical attendance, would report the case for removal. Indeed, I have known a physician to ask that his patient might be allowed to remain at home for treatment, promising to assume all responsibility in regard to quarantine, disinfection, etc., and in the course of a week or ten days, to return and ask that the same patient be removed to the hospital; the result of which was that the doctor was relieved from the necessity of signing a death certificate.

All of these cases properly belong to private practice, and could we eliminate them from our calculations it would considerably reduce the percentage of our hospital mortality.

Since the change in management has been effected, the hospital has been steadily gaining in popularity, and it is now not at all unusual for us to be gratified with the sincere thanks of returned patients for the kindness and tender care which they received during the period of exclusion from their homes and from society. There is now far greater willingness on the part of the sick, especially the intelligent portion, to be removed than there was formerly; and as none are allowed to leave the hospital until they are entirely recovered—have had repeated baths and their clothing has been thoroughly fumigated—it is believed that no danger exists of their conveying the disease to any with whom they may afterwards associate.

RIVERSIDE HOSPITAL.

CENSUS, 1875.

	PATIENTS.	NURSES.	TOTAL.
Admissions, from January 20 to December 31............	2,427	408	2,835
Accounted for as follows :			
Discharges...	1,753	408	2,835
Deaths.........................	674	...	

CLASSIFICATION.

	PATIENTS.																		NURSES.	TOTAL.
														WHITE.		COL'D.				
	Health Department.	Charity Hospital.	Penitentiary.	Work-house.	Lunatic Asylum.	Hart's Island.	Randall's Island.	Quarantine.	St. E. Ref. and Hospital.	School-ship "Mercury."	Riverside Hospital.	Total.	Native.	Foreign.	Males.	Females.	Males.	Females.		
ADMISSIONS.																				
Quarter ending—																				
March 31....	502	7	20	16	4	1	..	1	..	..	..	551	257	294	361	160	22	8	73	624
June 30....	907	5	5	3	..	..	..	5	4	..	..	929	437	492	532	385	10	2	164	1,093
Sept. 30....	504	17	3	1	1	..	2	2	2	..	1	533	260	273	290	232	8	3	100	633
Dec. 31....	384	10	2	4	1	2	1	..	2	8	..	414	205	209	230	144	23	17	71	485
	2,297	39	30	24	6	3	3	8	8	8	1	2,427	1,159	1,268	1 413	921	63	30	408	2,835
DISCHARGES.																				
Quarter ending—																				
March 31....	349	5	17	13	2	1	..	1	..	..	..	388	152	236	259	109	14	6	73	461
June 30....	650	4	5	2	..	..	..	5	4	..	..	670	269	401	392	270	6	2	164	834
Sept. 30....	374	14	2	1	1	..	1	2	2	..	..	397	167	230	216	174	5	2	100	497
Dec. 31....	278	6	2	2	1	1	1	..	1	6	..	298	135	163	167	100	17	14	71	369
	1,651	29	26	18	4	2	2	8	7	6	..	1,753	723	1,030	1,034	653	42	24	408	2,161
DEATHS.																				
Quarter ending—																				
March 31....	153	2	3	3	2	..	..	..	..	..	..	163	105	58	102	51	8	2	...	163
June 30....	257	1	..	1	..	..	..	..	..	..	..	259	168	91	140	115	4	..	...	259
Sept. 30....	130	3	1	..	..	..	1	..	..	..	1	136	93	43	74	58	3	1	...	136
Dec. 31....	106	4	..	2	..	1	..	..	1	2	..	116	70	46	63	44	6	3	...	116
	646	10	4	6	2	1	1	..	1	2	1	674	436	238	379	268	21	6	...	674

There were also in hospital, on January 20, 1875, 155 patients, many in an advanced state of convalescence, but of which number 17 subsequently died; remainder discharged.

ADMISSIONS.

Table I.—Age, Sex, Color.

		Years.					
		5 and under.	5–15.	15–25.	25–50.	over 50.	total.
Quarter ending March 31 :							
White....	Males......	33	23	152	146	7	361
	Females. ..	37	21	50	47	5	160
Colored...	Males......	4	..	9	9	..	22
	Females....	..	2	4	2	..	8
Quarter ending June 30 :							
White....	Males......	108	52	164	193	15	532
	Females....	87	62	94	120	22	385
Colored...	Males......	1	1	4	4	..	10
	Females....	..	..	1	1	..	2
Quarter ending Sept. 30 :							
White....	Males......	59	28	97	93	13	290
	Females....	66	25	54	81	6	232
Colored...	Males	..	1	5	2	..	8
	Females....	..	..	2	1	..	3
Quarter ending Dec. 31 :							
White....	Males......	39	19	81	89	2	230
	Females....	32	18	45	42	7	144
Colored ..	Males......	..	3	11	8	1	23
	Females....	3	1	9	4	..	17
		469	256	782	842	78	2,427

Summary.

Year ending Dec. 31 :							
White....	Males......	239	122	494	521	37	1,413
	Females....	222	126	243	290	40	921
Colored...	Males......	5	5	29	23	1	63
	Females....	3	3	16	8	..	30
		469	256	782	842	78	2,427

DEATHS.

and Occupation of Patients.

TABLE I^a.—AGE, SEX, COLOR.

		Years.					
		5 and under.	5–15.	15–25.	25–50.	Over 50.	Total.
Quarter ending March 31:							
White....	Males......	25	7	27	41	2	102
	Females....	24	6	8	11	2	51
Colored...	Males......	1	..	4	3	..	8
	Females....	..	1	1	..	..	2
Quarter ending June 30:							
White....	Males......	57	13	26	37	7	140
	Females....	48	14	20	28	5	115
Colored...	Males......	..	..	1	3	..	4
	Females....	..	..	..	..	..	..
Quarter ending Sept. 30:							
White....	Males......	32	9	15	16	2	74
	Females....	24	8	9	17	..	58
Colored...	Males......	..	..	1	2	..	3
	Females....	..	..	1	..	..	1
Quarter ending Dec. 31:							
White....	Males......	22	4	13	24	..	63
	Females....	22	5	4	11	2	44
Colored...	Males......	..	..	4	1	1	6
	Females....	1	..	2	..	..	3
		256	67	136	194	21	674

SUMMARY.

Year ending Dec. 31:							
White...	Males......	136	33	81	118	11	379
	Females....	118	33	41	67	9	268
Colored...	Males......	1	..	10	9	1	21
	Females....	1	1	4	..	..	6
		256	67	136	194	21	674

ADMISSIONS.

Age, Sex, Color, Nativity,

TABLE II.—NATIVITY.

	United States.	Germany.	Ireland.	England.	Scotland.	France.	Switzerland.	West Indies.	Denmark.	Italy.	Canada.	China.	Australia.	Norway.	Sweden.	Poland.	Turkey.	Nova Scotia.	South America,
Quarter ending—																			
March 31.......	258	163	83	20	3	6	5	4	1	4	2	1	1	..	..	..	..	..	..
June 30.......	433	343	84	29	4	3	5	2	5	8	4	..	..	4	3	1	1	..	..
Sept. 30.......	256	191	56	9	3	1	4	4	5	1	2	..	..	..	1	..	..	..	..
Dec. 31.......	208	110	56	8	2	5	5	4	..	2	4	..	..	4	3	1	..	1	1
	1,155	807	279	66	12	15	19	14	11	15	12	1	1	8	7	2	1	1	1

TABLE III.—OCCUPATIONS.

Actor	1
Agents	9
Architect	1
Artists	2
Auctioneers	3
Bag-maker	1
Bakers	34
Barbers	16
Bar-tenders	14
Basket-makers	2
Blacksmiths	11
Boatmen	5
Bookbinders	4
Bookkeepers	14
Brewers	14
Bricklayers	4
Brokers	3
Builder	1
Butchers	43
Cabinet-makers	15
Canvasser	1
Captain of steam-ship	1
Car conductors	4
Carpenters	36
Cigar-makers	32
Clerks	95
Coachmen	9
Collectors	2
Cooks—male	6
Cooks—female	2
Confectioners	4
Coopers	9
Cutlers	2
Deputy Sheriff	1
Domestics	198
Dress-makers	8
Drivers	45
Druggists	3
Dyer	1
Engineers	6
Engravers	2
Expressmen	3
Feather-maker	1
Fire Department	1
Firemen	4
Florist	1
Flower-makers	2
Furriers	2
Gardeners	8
Gas-workers	5
Glaziers	2
Grocers	24
Hair dealers	2
Hatters	5
Housekeepers	312
Infants	469
Instrument-makers	2
Janitors	3
Jewelers	10
Junkmen	3
Laborers	164
Lager bier saloon keeper	5
Laundresses	5
Liquor dealers	5
Livery stable keeper	1
Locksmiths	3
'Longshoremen	7
Machinists	18
Manufacturers	14
Mason	1
Matron	1
Mechanics	20
Merchants	8
Midwives	2
Milkmen	3
Milliner	1
Miners	3
Minors	256
Moulders	9
Musicians	9
Newsboy	1
No occupation	29
Organ-grinders	2
Oystermen	4
Painters	24
Paper-hanger	1
Peddlers	6
Piano-makers	4
Pilot	1
Plasterers	6
Plumbers	13
Policemen	2
Porters	13
Post-office clerk	1
Printers	19
Rag-pickers	2
Rope-makers	2
Saddlers	2
Sail-maker	1
Sailors	43
Salesmen	7
Sculptor	1
Seamstresses	17
Shoemakers	22
Stablemen	8
Stone-cutters	9
Storekeepers	11
Street-sweeper	1
Students	4
Tailors	40
Teacher	1
Tinsmiths	9
Turners	4
Undertakers	2
Upholsterers	7
Vagrants	2
Varnishers	7
Waiters	30
Weavers	3
Wheelwrights	2
Whitewashers	6
Total	2,427
Nurses	408
	2,835

DEATHS.

and Occupation of Patients.

TABLE II a.—NATIVITY.

	United States.	Germany.	Ireland.	England.	Scotland.	France.	Switzerland.	West Indies.	Denmark.	Italy.	Canada.	Norway.	Sweden.	Nova Scotia.	Poland.
Quarter ending—															
March 31	105	28	22	2	1	2	1	1	1	..	..	..	..	..	..
June 30	171	47	29	5	..	..	1	1	..	2	2	1	..	..	..
Sept. 30	93	31	12	..	..	..	..	..	..	..	..	..	..	..	..
Dec. 31	70	18	15	1	..	4	1	..	..	1	1	..	3	1	1
	439	124	78	8	1	6	3	2	1	3	3	1	3	1	1

TABLE III a.—OCCUPATIONS.

Actor	1	Laborers	46
Agents	3	Lager bier saloon keeper	1
Architect	1	Laundresses	2
Artist	1	Liquor dealers	2
Auctioneers	..	'Longshoremen	4
Bakers	3	Machinists	6
Barbers	2	Manufacturers	2
Bar-tenders	3	Mason	1
Blacksmiths	3	Mechanic	1
Boatmen	2	Milkman	1
Bookbinders	3	Milliner	1
Bookkeepers	2	Minors	68
Brewers	4	Musician	1
Bricklayer	1	No occupation	11
Butchers	7	Organ-grinders	..
Cabinet-makers	2	Painters	5
Captain of steam-ship	1	Plasterers	6
Carpenters	6	Plumbers	3
Cigar-makers	7	Porters	4
Clerks	16	Printers	3
Coachmen	2	Rag-picker	1
Collector	1	Rope-maker	1
Cooper	1	Sailors	7
Cutler	1	Salesman	1
Domestics	43	Seamstresses	3
Drivers	13	Shoemakers	2
Engineers	3	Stableman	1
Florist	1	Stone-cutters	2
Flower-maker	1	Storekeeper	1
Gardener	1	Tailors	10
Grocers	4	Teacher	1
Hatter	1	Tinsmith	1
Housekeepers	71	Upholsterer	1
Infants	256	Waiters	4
Jewelers	2		
Junkman	1	Total	674

TABLE IV.—ADMISSIONS.

	Quarters.				Quarters.				Quarters.				Year ending December 31.		
	1st.	2d.	3d.	4th.	1st.	2d.	3d.	4th.	1st.	2d.	3d.	4th.			
	Males.				Females.				Total Sexes.				M.	F.	Total.
Vaccinated:															
Adults and children over 5 years of age..........	310	393	209	199	116	260	140	118	426	653	349	317	1,111	634	1,745
Infants under 5 years of age..................	9	33	16	5	9	23	19	7	18	56	35	12	63	58	121
Unvaccinated:															
Adults and children over 5 years of age.........	10	15	21	12	3	13	19	6	13	28	40	18	58	41	99
Infants under 5 years of age..................	25	61	42	29	24	54	45	26	49	115	87	55	157	149	306
No history..............	29	40	10	8	16	37	12	4	45	77	22	12	87	69	156
	383	542	298	253	168	387	235	161	551	929	533	414	1,476	951	2,427

SUMMARY.

Vaccinated....................	319	426	225	204	125	283	159	125	444	709	384	329	1,174	692	1,866
Unvaccinated.................	35	76	63	41	27	67	64	32	62	143	127	73	215	190	405
No history....................	29	40	10	8	16	37	12	4	45	77	22	12	87	69	156
	383	542	298	253	168	387	235	161	551	929	533	414	1,476	951	2,427

TABLE V.—PERCENTAGES

	Quarters.				Quarters.			
	1st.	2d.	3d.	4th.	1st.	2d.	3d.	4th.
	Males.				Females.			
Vaccinated:								
Adults and children over 5 years of age...............	22.90	17.30	17.70	21.10	20.68	19.61	18.57	17.79
Infants under 5 years of age....	44.44	27.27	18.75	60.00	44.44	26.08	21.05	71.42
Unvaccinated:								
Adults and children over 5 years of age...............	50.00	40.00	28.57	33.33	66.66	30.76	26.31	50.00
Infants under 5 years of age...	72.00	54.09	54.76	51.72	41.66	59.25	35.55	61.53
No history........................	41.37	70.00	80.00	62.50	81.25	59.45	66.66	75.00

SUMMARY.

Vaccinated........................	23.51	18.07	17.77	22.05	22.40	20.14	18.86	18.40
Unvaccinated.....................	65.71	51.31	46.03	46.34	44.44	53.73	32.81	65.62
No history........................	41.37	70.00	80.00	62.50	81.25	59.45	66.66	75.00

PERCENTAGES.

TABLE IV^{a}.—DEATHS.

	QUARTERS.				QUARTERS.				QUARTERS.				YEAR ENDING DECEMBER 31.		
	1st.	2d.	3d.	4th.	1st.	2d.	3d.	4th.	1st.	2d.	3d.	4th.			
	Males.				Females.				Total Sexes.				M.	F.	Total
Vaccinated :															
Adults and children over 5 years of age	71	68	37	42	24	51	26	18	95	119	63	60	218	119	337
Infants under 5 years of age...........	4	9	3	3	4	6	4	5	8	15	7	8	19	19	38
Unvaccinated :															
Adults and children over 5 years of age	5	6	6	4	2	4	5	3	7	10	11	7	21	14	35
Infants under 5 years of age...........	18	33	23	15	10	32	16	18	28	65	39	33	89	76	165
No history..............	12	28	8	5	13	22	8	3	25	50	16	8	53	46	99
	110	144	77	69	53	115	59	47	163	259	136	116	400	274	674

SUMMARY.

Vaccinated..............	75	77	40	45	28	57	30	23	103	134	70	68	237	138	375
Unvaccinated...........	23	39	29	19	12	36	21	21	35	75	50	40	110	90	200
No history..............	12	28	8	5	13	22	8	3	25	50	16	8	53	46	99
	110	144	77	69	53	115	59	47	163	259	136	116	400	274	674

OF MORTALITY.

QUARTERS.				YEAR ENDING DECEMBER 31.			
1st.	2d.	3d.	4th.				
Total Sexes.				Male.	Female.	Total.	
							Vaccinated :
21.59	18.22	18.05	18.92	19.62	18.76	19.31	Adults and children over 5 years of age.
44.44	26.78	20.00	66.66	30.15	32.75	31.40	Infants under 5 years of age.
							Unvaccinated :
53.84	35.71	27.50	38.88	36.20	34.14	35.35	Adults and children over 5 years of age.
57.14	56.51	44.82	56.36	56.68	49.66	53.26	Infants under 5 years of age.
55.55	64.93	72.72	66.66	60.91	66.66	63.46	No history.

SUMMARY.

23.19	18.89	18.22	20.66	20.18	19.94	20.09	Vaccinated.
56.45	52.44	39.37	54.79	51.16	47.36	49.38	Unvaccinated.
55.55	64.93	72.72	66.66	60.91	66.66	63.46	No history.

SUDDEN DEATHS.

	Vaccinated.	Unvaccinated.	No History.	Total.
Within 6 hours of admission	5	7	3	15
" 12 " "	6	6	1	13
" 24 " "	17	7	6	30
" 36 " "	15	10	3	28
" 48 " "	24	15	1	40
	67	45	14	126

YEAR'S SUMMARY.

	Admissions.	Deaths.	Percentage of Mortality.	
			Inclusive of Sudden Deaths.	Exclusive of Sudden Deaths.
Vaccinated	1,866	375	20.09	16.50
Unvaccinated	405	200	49.38	38.27
No history	156	99		
	2,427	674		

Table showing the Percentage of Mortality under the various Nationalities.

	Admissions.	Deaths.	Death-Rate.
			Per Cent.
United States	1,155	439*	38.00
Germany	807	124	15.36
Ireland	279	78	27.95
England	66	8	12.12
Scotland	12	1	8.33
France	15	6	40.00
Switzerland	19	3	15.78
West Indies	14	2	14.28
Denmark	11	1	9.09
Italy	15	3	20.00
Canada	12	3	25.00
China	1	..	.....
Australia	1	..	.....
Norway	8	1	12.50
Sweden	7	3	42.85
Poland	2	1	50.00
Turkey	1	..	.....
Nova Scotia	1	1	.....
South America	1	..	.....
	2,427	674	.....

* Includes the majority of "Infants under 5 years."

Note.—From an examination of the "Percentages of Mortality" (Table V.) it appears that the death-rate perceptibly declined during the hot months; and, further, that the hospital death-rate gradually, but steadily decreased throughout the year.

VACCINATION.

The organization of a permanent corps of vaccinators was completed October 1, 1874, at which time it consisted of eleven assistant inspectors, who were physicians, of two clerks, and a messenger, under the charge of Dr. J. B. Taylor, Inspector of Vaccination. As occasion demanded, additions have been temporarily made to it. This corps has been very efficient. A full report from Dr. Taylor, herewith transmitted, precludes the necessity of my enlarging on its work. It has performed 126,003 vaccinations, sold $1,231.54 worth of virus, and distributed 13,826 quill-points gratuitously among the charitable institutions of the city. Being a branch of this bureau, to which all cases of small-pox are reported, it has been possible to direct the work of this corps to points where the disease prevailed, and not unfrequently, by tracing the hidden sources of contagion, we have been able to put on their guard persons who had no knowledge of having been exposed to contagion.

HEALTH DEPARTMENT—VACCINATING CORPS,
NEW YORK, January 1, 1876.

WALTER DE F. DAY, M. D.,
Sanitary Superintendent:

SIR—I have the honor to present the following history of the organization of the Vaccinating Corps, plan of conducting it, and amount of work performed during the fifteen months ending on December 31, 1875.

The Commissioners of the Board of Health, in 1874, recognizing the importance of having a permanently organized corps for the purpose of securing thorough vaccination in this city, as suggested in the Sanitary Superintendent's annual report for 1873, presented a bill to the Legislature, which became a law June 15, 1874, entitled "An Act to Secure Effective Vaccination in the City of New York, and the Collection of Pure Vaccine Lymph or Virus," which is as follows:

SECTION 1. For the purpose of more effectually preventing the spread of small-pox in the City of New York by the thorough and systematic vaccination of all unvaccinated persons residing therein, the Board of Health of the said city is empowered to organize a Corps of Vaccinators within and subject to the control of the Bureau of Sanitary Inspection, to appoint the necessary officers, keep suitable records, collect and preserve pure vaccine lymph or virus, and to add to the Sanitary Code, as provided by section 82 of chapter 335 of the Laws of 1873, entitled "An Act to Reorganize the Local Government of the City of New York," passed on April 30, 1873, such additional provisions as will most effectually secure the end in view.

SEC. 2. Whenever the amount of vaccine lymph or virus collected by the said Corps shall exceed the amount required in the proper performance of its duties, the said Board of Health may authorize the sale of such surplus lymph or virus at reasonable rates, to be fixed by the said Board. The avails of such surplus lymph or virus shall be accounted for and paid to the

Chamberlain of the City of New York, as provided by existing laws, and shall be set apart and constitute a distinct fund, to be known as "The Fund for Gratuitous Vaccination," and shall be subject to the requisition of said Board for the purposes of this act.

Sec. 3. Within fifteen days after the passage of this act, the Board of Apportionment created by section 112 of the act entitled "An Act to Reorganize the Local Government of the City of New York," passed April 30, 1873, shall, by the affirmative vote of all the members thereof, estimate the amount required to organize and maintain the said Corps for the present financial year; and such estimate shall be final, and the amount thereof shall be and become appropriated for the use and maintenance of such Corps, and shall be raised in the manner provided by the said section 112 of the act herein named.

Sec. 4. This act shall take effect immediately.

Under the power conferred by this law, the Commissioners, at a regular meeting of the Board, held on September 29, 1874, organized a Vaccinating Corps, by passing the following:

Resolved, That Dr. James B. Taylor be appointed Inspector of Vaccination, at a salary of $2,500 per annum, from October 1, 1874; that the following-named persons be appointed Assistant Sanitary Inspectors, at a salary of $1,500 per annum: Dr. Robert D. Nesmith, Dr. Martin J. Fleming, Dr. Abelardo B. De Luna, Dr. Edward L. Pardee, Dr. Peter B. Wyckoff, Dr. Frank Livermore, Dr. Wm. E. H. Post, Dr. Henry Rockwell, Dr. Horace R. Williams, Dr. Joseph E. Tucker, and Dr. Thomas W. P. Flinn.

That the following-named persons be appointed clerks in this Department, and be assigned to the Vaccinating Corps, with salaries at the rate of $1,200 per annum: S. Percy Ellis, Wm. W. Post, Louis T. Brennan, and Allott Lodge; and that John Schnell be appointed messenger to the Vaccinating Corps, with a salary at the rate of $600 per annum.

Shortly after organizing, the services of Louis T. Brennan and Allott Lodge, clerks, were dispensed with, as it was found that two clerks could perform all the necessary clerical work. The persons composing the corps reported for duty on October 1, and a system of work was established according to the following plan: Each vaccinator was provided with a blank book in which to enter the names of all persons he vaccinated, the residences, ages, etc. Blanks, of which the following is a copy, also were furnished, upon which the vaccinators were required to make semi-weekly reports of work performed:

Sanitary Bureau—Health Department,
Vaccinating Corps,
New York, ...187 .

To........................M. D.,
Inspector of Vaccination:

Sir—I respectfully report that since my last semi-weekly return I have performed the following vaccinations:

Date.	Name.	Residence.	Front or rear house.	No. of Room.	Age.	P. or Re-Vac.	Prev. Vac.	When.	Nationality.	Parentage.	Remarks.

The contents of these reports were entered in books prepared for the purpose, and kept in this office. Three books were provided—one for primary vaccinations, one for re-vaccinations, and one for recording births reported to the Bureau of Vital Statistics, as it was supposed that by this means we would be able more readily to find unvaccinated children. The latter book subsequently was abandoned, and the book for re-vaccinations was used for recording vaccinations performed in schools. This system has been continued up to the present time. The necessity for this arose from the fact that certificates were issued to all children successfully vaccinated in schools. The book for primary vaccinations corresponded with the form of semi-weekly reports of the inspectors, with the addition of two columns—one for recording the history of each successful vaccination, and the other for the date upon which the certificates were issued. The book for school vaccinations was ruled and headed as follows:

No.	NAME.	AGE.	SCHOOL.	By Whom Vaccinated.	Date.	Primary or Re-Vac.	Remarks.	Certificate Issued.

A record of the re-vaccinations is kept on file only in the semi-weekly reports, as this is regarded as sufficient, there being seldom occasion to refer to them.

As small-pox was prevailing quite extensively at the time of the organization of this corps, it was not thought advisable to divide the city into districts corresponding to the number of vaccinations, assigning one to each, but rather to confine the work especially to those localities where the disease principally was to be found. Each vaccinator was assigned a street or one side of a street, and directed to visit every room in tenement houses, as well as shops, factories, etc., and offer free vaccination. When the semi-weekly reports were received, lists of the primary vaccinations for each day were made, and, on the eighth day after the operation, the patients were examined by one inspector experienced in that work. These examinations were made for purpose of ascertaining the results of the vaccinations, re-vaccinating in the event of a failure, and collecting virus. Where the examiner found primary vesicles which had not developed fully, as for instance where the appearance of any other disease had prevented such development, or where the vesicle appeared too small, he either re-vaccinated at once or advised the parents that the child was not thoroughly protected from small-pox, and should be vaccinated again as soon as convenient. We have found that having all examinations made by one vaccinator insures greater expedition and trustworthiness. From the twentieth to the thirtieth day all primaries reported as successful were again visited, and certificates delivered to them.

The following are the general instructions which have been given to the vaccinators: regarding the manner of vaccinating, instruments to be used, subjects to be operated upon, and other details of their work.

Primary vaccinations were to be performed only upon children at the age of three months and upwards, and those in good health. Those suffering from acute diseases, such as diarrhœa and rubeola, or any eczematous eruption, were not to be vaccinated unless exposure to small-pox had occurred or was apprehended. Of course, under the latter circumstances, neither age nor state of health was to be considered. Only one scarification was to be made; and that slightly above the insertion of the deltoid muscle, consisting of a number of parallel scratches or cross-scratches about the size of a silver dime coin, deep enough to draw a sufficient amount of blood or serum to dissolve the virus. The charged end of the quill slip was to be placed in contact with the abraded surface and gently rubbed over it for a moment only, allowing the moisture to become thoroughly dried before covering the arm. The quills never were to be moistened before being applied to the arm, and neither plaster nor bandage was to be used. The ordinary flat-bladed lancet was to be the only instrument used, and that must be kept perfectly clean by wiping it between the moistened fingers or using a damp cloth after each operation. Re-vaccinations were to be performed only upon those who have not been successfully vaccinated within five years, or those not presenting typical cicatrices. The location of the scarification and the manner of performing it was to be the same as in primary vaccinations, the size of the wound being slightly smaller. A copy of the following circular, printed in both English and German, was to be left with every family in which a primary vaccination was performed:

GENERAL DIRECTIONS TO BE FOLLOWED AFTER VACCINATION.

Avoid having a flannel or woolen sleeve or a linen band around the arm, as they irritate it and keep it sore much longer than it should be, and will also prevent the vaccination from becoming perfect. Be careful that the sore be not scratched or torn. Either leave the arm entirely bare or cover it with a thin, loose sleeve of calico or muslin. In case the arm becomes very much inflamed after the tenth day, do not poultice it, but keep it covered with a cloth wet with lukewarm water, and it will usually heal very readily. Babies should be vaccinated before they are five months old, if possible, so that they may get entirely over the effect of it before teething begins. It makes no difference at what time of the year the vaccination is performed. Vaccination, such as we offer, will ALWAYS prevent small-pox, if attended to in time. If any bad effects appear to follow vaccination, notify the Board of Health, and a physician will be sent to attend the case free of charge.

The Vaccinating Corps will visit your house twice each year, and offer free vaccination.

Vaccination will also be performed at the office of the Board, daily, between 9 A. M. and 4 P. M.

HEALTH DEPARTMENT,
301 MOTT STREET, bet. Houston and Bleecker Streets,
Room No. 38, First Floor.

The names and residences of all children too young, or whose health would not warrant vaccination at the time, were to be taken for reference in case of a future visit. The inspector who examined primaries collected all the virus. The primary list for each day has been so large that the Inspector was enabled to be particularly discriminating in the subjects from which to collect, so that only those presenting every characteristic of the perfect eighth-day vesicle were chosen, and then only when they appeared upon perfectly healthy infants. The following general plan has been followed :

Lymph was taken only from babies, because of their being easier to manage than older children, and also because they give a much larger supply. It was never taken from re-vaccinations under any circumstances. Lymph could be obtained at any time after the vesicle would yield it, though our rule has been to collect it only upon the eighth day, or the day week from the date of vaccination. At that time the vesicle should be fully formed, and should yield more virus than at any other period. It was not to be taken after the appearance of the areola, even on the eighth day; not that there is any great danger in using ninth or tenth day virus, even if considerable areola be present, but more care must be used in collecting it on account of a greater tendency of such vesicles to bleed than at an earlier period, and perhaps erysipelatous or erythematous appearances more frequently follow its use.

In order to open a vesicle properly it is necessary to make a number of minute punctures upon its surface, rather than around the base. As virus is contained in small cells it is requisite that a number of punctures should be made in order to get a good flow. There is too much danger of drawing blood in puncturing at the base of the vesicle. Any sharp-pointed instrument can be used for this purpose, though a section of quill, sharpened at one end, is preferable, as a fresh one can be used with each child. When blood is drawn the vesicle must either be abandoned or the blood allowed to coagulate; then by carefully wiping it away the operation can be continued. By placing the prepared end of the quill in contact with the virus as it exudes from the vesicle, as much as is necessary to charge it will be absorbed at once and will become almost instantly dried. So long as the vesicle yields pure lymph it may be taken, though the amount to be collected from each child can be determined only by the manner in which it flows and by its appearance. This can be learned only by experience. The vesicle should never be compressed to increase the flow of lymph, as this would tend to retard rather than increase it. We seldom vaccinate from arm to arm, as there is no particular advantage derived from it, and our vaccinations are performed in such a manner that there is rarely an opportunity of doing so. Ordinary goose quills are what we always use to charge with virus. These are prepared by first being soaked thoroughly in water until they are quite soft, and cutting them the proper length. After this the quills are carefully dried and the outer skin or covering scraped off with a piece of glass or a knife, glass being preferable, or ground off upon an emery wheel or with sand paper. Quills prepared in this manner will absorb virus very readily and in sufficient quantity; they are comparatively inexpensive, and need never be used a second time.

The following is a table of the inspectors employed during the period covered by this report, showing the date of qualification and the length of service:

	DATE OF QUALIFICATION.	LENGTH OF SERVICE.
Dr. James B. Taylor	Oct. 1, 1874	Still employed.
Dr. Peter B. Wyckoff	Sept. 30, 1874	"
Dr. Martin J. Fleming	" 30, 1874	"
Dr. Thomas W. P. Flinn	Oct. 1, 1874	"
Dr. Joseph E. Tucker	" 1, 1874	June 16, 1875.
Dr. Edward L. Pardee	" 1, 1874	Still employed.
Dr. Robert D. Nesmith	" 1, 1874	Jan. 12, 1875.
Dr. Frank Livermore	" 1, 1874	Still employed.
Dr. Abelardo B. De Luna	" 1, 1874	"
Dr. Horace R. Williams	" 1, 1874	"
Dr. Henry Rockwell	" 1, 1874	Jan. 12, 1875.
Dr. William E. H. Post	" 27, 1874	Still employed.
William W. Post, Clerk	" 1, 1874	"
Louis T. Brennan, "	" 1, 1874	Jan. 12, 1875.
S. Percy Ellis, "	" 2, 1874	April 6, 1875.
Allott Lodge, "	" 3, 1874	Jan. 12, 1875.
John Schnell, Messenger	" 1, 1874	Still employed.
Dr. Jarvis N. Husted	Dec. 9, 1874	Jan. 9, 1875.
Dr. Robert Campbell	" 9, 1874	" 9, 1875.
Dr. John J. Reid	" 9, 1874	" 9, 1875.
Dr. Guy D. Daly	" 9, 1874	" 9, 1875.
Dr. W. Gill Wylie	" 9, 1874	" 9, 1875.

	Date of Qualification.	Length of Service.
Dr. W. Gill Wylie	June 3, 1875	July 1, 1875.
Dr. William J. Purcell	Dec. 9, 1874	Jan. 9, 1875.
“	May 1, 1875	Still employed.
Dr. Nathaniel G. McMaster	Dec. 11, 1874	Jan. 1, 1875.
“ “	June 3, 1875	Sept. 1, 1875.
Dr. Charles Laight	Dec. 14, 1874	Jan. 31, 1875.
Dr. Thomas L. Janeway	“ 14, 1874	“ 31, 1875.
“	June 2, 1875	Sept. 1, 1875.
Dr. George M. Schweig	Dec. 15, 1874	Jan. 31, 1875.
“	June 2, 1875	Sept. 1, 1875.
Dr. Francis M. Purroy	Dec. 16. 1874	Jan. 31, 1875.
Dr. Joseph W. Battershall	“ 17, 1874	“ 31, 1875.
Dr. George H. Fox	“ 17, 1874	“ 31, 1875.
Dr. Jacob C. Conover	“ 23, 1874	“ 31, 1875.
“	June 4, 1875	Sept. 1, 1875.
Dr. Aaron P. Dalrymple	Dec. 23, 1874	Jan. 31, 1875.
“	June 3, 1875	Sept. 1, 1875.
Dr. Frederick S. Osborn	Dec. 23, 1874	Jan. 31, 1875.
Dr. Titus M. Coan	“ 23, 1874	“ 31, 1875.
Dr. Frank H. Bosworth	“ 23, 1874	“ 31, 1875.
Dr. Ira B. Read	“ 23, 1874	“ 31, 1875.
“	June 21, 1875	Sept. 1, 1875.
Dr. Landon Carter Gray	Dec. 23, 1874	Jan. 31, 1875.
Dr. Robert A. Joyce	“ 24, 1875	“ 31, 1875.
Dr. Caleb Lyon	“ 26, 1874	“ 31, 1875.
Dr. Edward J. Birmingham	“ 30, 1874	“ 31, 1875.
Lewis Morris, Clerk	April 15, 1875	May 1, 1875.
John H. Bazin, “	May 1, 1875	Still employed.
Dr. J. Blake White	“ 24, 1875	June 1, 1875.
“	Oct. 15, 1875	Still employed.
Dr. Joseph T. O'Connor	May 24, 1875	June 1, 1875.
“	Oct. 15, 1875	Still employed.
Dr. Edward C. Passmore	May 24, 1875	June 1, 1875.
“	Oct. 15, 1875	Still employed.
Dr. Franz Heuel, Jr	June 2, 1875	Sept. 1, 1875.
Dr. James R. Healy	“ 2, 1875	“ 1, 1875.
Dr. Edward P. Williams	“ 2, 1875	“ 1, 1875.
Dr. Alexander Strong	“ 2, 1875	“ 1, 1875.
Dr. William P. Ackerman	“ 2, 1875	“ 1, 1875.
Dr. James L. Wilson	“ 3, 1875	July 3, 1875.
Dr. James L. Perry	“ 3, 1875	Sept. 1, 1875.
Dr. Elijah A. Maxwell	“ 3, 1875	“ 1, 1875.
Dr. James J. Purcell	“ 3, 1875	July 3, 1875.
Dr. James L. Adams	“ 3, 1875	Sept. 1, 1875.
Dr. Edward F. Brush	“ 4, 1875	“ 1, 1875.
Dr. Leopold Putzel	“ 4, 1875	July 4, 1875.
Dr. Benjamin J. Harlan	“ 5, 1875	“ 5, 1875.
Dr. John W. Robie	July 1, 1875	Sept. 1, 1875.
Dr. S. Henry Dessau	“ 1, 1875	“ 1, 1875.
Dr. James E. M. Lordly	“ 1, 1875	“ 1, 1875.
Dr. Lewis A. Stimson	“ 1, 1875	“ 1, 1875.
Dr. Gottlieb Stein	“ 2, 1875	Aug. 4, 1875.
Dr. Charles Sherman	“ 10, 1875	Sept. 1, 1875.
Dr. Augustus Assenheimer	“ 12, 1875	July 17, 1875.

This list shows that 58 vaccinators have been employed during this period, representing a total of 257 months 23 days' work, or averaging about 17 men constantly on duty for the 15 months.

KIND OF VIRUS USED.

We began vaccinating with virus of the same stock as that from which the Health Department had been supplied by the late Dr. Jonas P. Loines, of the Eastern Dispensary, and myself, for about five years, and which had been used and sold by him for about twenty years previously. This virus was originally obtained from England by Dr. Loines, and in all probability was descended from the stock furnished by Jenner. As it always developed characteristic Jennerian vesicles, and as it had always thoroughly protected from small-pox those upon whom it was used, Dr. Loines never thought favorably of employing any other, though upon several occasions he introduced virus of a different stock, which he carefully compared with his own without finding any benefit from the change. We used this virus exclusively for a short time, and then, as so many of our vaccinators were inexperienced, and as the liability to degeneration of the virus was greater on that account, it was thought advisable to begin from the bovine stock, which was done. Great pains were used in selecting subjects, and in a short time we had a large supply of the new stock, while a careful comparison was made between the new and the old. For several months the two kinds of virus were kept apart and used under similar conditions, and at no time did we detect the slightest difference either in the appearance of the vesicles or in results. Since that fact had been demonstrated to our satisfaction the two kinds of virus afterward were used indiscriminately. This change was not one of necessity but merely of precaution, as we had not observed any indication of deterioration or results other than were usual. As in the beginning, a number of our vaccinators were naturally inexperienced, we could not place entire trust in their primary vaccinations for the collection of virus, consequently our best vaccinators were selected to work in those neighborhoods where they would obtain the greatest number of primaries, and virus was collected from these subjects only. The first few points from each infant were reserved for the purpose of vaccinating other primaries, the remainder for re-vaccinations. After a time, our inspectors becoming more and more expert, it was no longer necessary to select primaries in this manner, though we still reserved the first few points from each vesicle, for other primaries, in order to avoid deterioration. I do not believe that virus can degenerate if we strictly adhere to the rules which should govern its collection—rules with which we must be familiar, both theoretically and practically, if we attempt this operation. As will be seen the virus which we are now using is, to a certain extent, the same which has been in use here at least twenty-five years, and develops vesicles perfect in size, color, appearance, and extent of areola, and compactness of crust. During the year 1871 the Health Department began the use of bovine virus of its own procuring, but as it proved quite expensive and the results were not as satisfactory as were expected, after a few months' trial this plan was abandoned and the humanized lymph again was resorted to. Though our virus has proved in every respect satisfactory, and probably has given as good, if not better results, than would be obtained from any other, I hope that during the coming year we will have an opportunity of trying bovine virus by the side of our old stock. There is more or less prejudice against humanized lymph among all classes of people, though less among those with whom we deal than with the better class. At any rate if we use bovine, or have both kinds, there will be less cause for objection to our vaccinations than there now is. In case we do resort to this, I hope in my next annual report to be able to give you a comparison of the results with both kinds of virus.

During the period embraced in this report the total number of vaccinations has amounted to 126,003, of which 24,395 were primaries, and 101,608 were re-vaccinations. Nearly all these were "house-to-house" vaccinations, only 21,431 having been performed in public schools and other public institutions.

Number of Primary Vaccinations, from October 1, 1874, to January 1, 1875	24,395
" re-vaccinations	101,608
	126,003

TOTAL RESULTS OF PRIMARIES.

Perfect	16,626	68 48-100	per cent.
Small or imperfect	3,173	13	"
Failed	2,703	11 8-100	"
Failed because sick	83	3-100	"
Not examined	1,810	7 41-100	"
	24,395	100	"

Assuming that the same percentage exists in cases not examined, we have—

Good	21,140	86 65-100	per cent.
Failed	3,255	13 35-100	"
	24,395	100	"

The ages of Primaries were as follows:

Under one year old	11,112	45 55-100	per cent.
Between one and two years old	5,666	23 22-100	"
" two and three "	3,740	15 33-100	"
" three and four "	1,766	7 24-100	"
Over four	2,111	8 66-100	"
	24,395	100	"

The average number of vaccinations performed by each inspector is as follows:

Total number vaccinated in fifteen months, 126,003; performed by fifty-eight inspectors, whose time represents two hundred and fifty-seven months and twenty-three days, equivalent to the continuous service of about seventeen inspectors for the period above-named. Upon this basis the number of vaccinations for each inspector is 7,412, being a daily average of 20½.

This report of work and results of the fifty-eight inspectors employed in the Vaccinating Corps, does not show the degree of success which we may reasonably hope to attain hereafter. When we began, nearly all of our inspectors were entirely inexperienced in vaccinating, and the work for the first few months was very much inferior to our general average. It was so poor, in fact, that it required very good work to make the record seem creditable for the full period of fifteen months. Then again, about two months after we began, as small-pox was rapidly on the increase, twenty-five extra inspectors were appointed. Some of these were inexperienced, and in the short time that they were employed did not have an opportunity to show the benefit of whatever improvement had taken place in their work. These inspectors were employed but one month. In June, 1875, there was again an increase of thirty-two to our corps. Quite a number of these had never vaccinated to any extent, and as the work of a few of them proved unsatisfactory, and they had been appointed only for three months, they were given other duties to perform. In spite of all such difficulties, however, our general average of success in primary vaccinations was 86 65-100 per centum. When small-pox is entirely subdued, or so nearly as to admit of our employing only the number of inspectors originally decided upon when this corps was organized, we hope to give a much better record in every respect. The success of the inspectors varies very greatly. The most successful vaccinator averaged 98 70-100 per centum, or only about one failure in one hundred vaccinations. This inspector worked only a short time, however, hardly making a fair comparison with those who worked longer. Five averaged upwards of 95 per centum, while the average of twenty-four was above 90. Then again, the record of one inspector is 33 58-100 per centum—another, but 37 50-100, while that of eleven was below 75.

Marson says that an experienced vaccinator should not fail in his attempts to vaccinate above once in one hundred and fifty times. Seaton says, that when dried lymph is used, such as quill points or slips, a failure should not occur in more than five per centum of the operations. While comparing such results as these with our own, we must remember that all of their vaccinations were performed upon selected children, and in the first instances directly from arm to arm, and a group of scarifications, from three to five, made on each child, in every instance. They were not obliged to vaccinate all babies who were of the proper age, but only those whose very appearance almost insured success; whereas a great part of the vaccinations performed by us, were upon children who resided either in houses where cases of small-pox were, or had been, or in that immediate neighborhood. Under such circumstances, we had no alternative except to vaccinate all whose parents would consent; even children suffering from acute or chronic diseases were frequently included. With such children it is very obvious that our percentage of failure must be unusually large. Many of them we were obliged to vaccinate repeatedly, before succeeding. Experience quickly taught us that the only harm which ever arises from vaccinating such children is a sore arm, now and then, which is easily healed by proper treatment, while many lives are saved by it. When we began we were much more cautious, and refused to vaccinate many babies on account of illness, even though living in infected houses, believing that they were unlikely to take small-pox. This delusion was quickly dispelled by observing the readiness with which they contracted that disease. We neither consider health nor age now, after exposure. Many of our subjects having been exposed a number of days before vaccination, break out with small-pox before the vaccination has time to influence it. These are always recorded as failures.

For two or three years previous to the commencement of our work, as comparatively little vaccinating had been performed by the Health Department, and as a great majority of the poor people had begun to depend upon this department altogether for vaccination, owing to the manner in which it had been done previously, there were found a large number of children unvaccinated, who had passed beyond the age of infancy. The table which has just been given, showing the ages of primaries upon whom vaccination has been performed, is sufficient proof of this statement. It shows, too, what a prolific field for small-pox there was, and is still—for there are yet a great many children upwards of one year old, who have not been vaccinated. This table proves that only 45 55-100 per centum of our primary vaccinations were under one year of age; about half of that number were between one and two years of age, and 15 19-100 per centum of the total number were upwards of three years of age. Not a few of the latter were adults, though nearly all of these, as well as many of the larger children, had recently arrived from the country or some foreign port.

There seems to be a general belief in the profession that there is a certain amount of non-susceptibility existing among all classes and nationalities of people. This opinion we have not, strictly speaking, found to be true. When failures occur, we succeed in re-vaccinating only about one-third, each time, owing to the objections of the parents. We are, consequently, prevented from supplying as much information upon this subject as we otherwise could. In the subjoined statement is found our success as complete as it could be obtained :

Failed upon first vaccination	2,786
Vaccinated, second time	879
Failed, “ “	129
Vaccinated, third “	47
Failed, “ “	22
Vaccinated, fourth “	17
Failed, “ “	13
Vaccinated, fifth “	5
Failed, “ “	3
Vaccinated, sixth “	3
Failed, “ “	2

Even at the sixth vaccination, with only three subjects, one was successful and two failed. There is no reason to doubt that the last two failures would have been successes if the parents had allowed us to continue in our attempts. According to this statement, we have not found one child who was not susceptible to vaccination out of 24,395 primaries, although two resisted six attempts.

We have prepared a table showing the success achieved by each inspector who has been engaged in primary vaccination since the organization of the corps, giving the percentage of success in primary vaccinations for each month, and also showing, quite strikingly, in several instances, the degree of improvement manifested in their work. It will be seen, also, that the greatest number of failures occurred in the months of June, July, August and September, the four hot months of the year. With two of the inspectors no perceptible difference was observed, as their averages were above 90 per centum during each summer month, and in two of them reached as high as 100 per centum. During the first three or four months the work of nearly all the inspectors was very much inferior to that obtained later. In the case of one, his success in November, 1874, was 78 71-100 per centum, while in November, 1875, it reached 95 06-100 per centum. The work of another in October, 1874, shows 78 99-100 per centum, and in October, 1875, 100 per centum. One other realized 86 31-100 per centum for October, 1874, and 98 39-100 for the corresponding month in the following year. Still another attained 73 20-100 in October, 1874, and 98 98-100 in the same month in 1875. All did not show such improvement, however. One began with 84 68-100 per centum and finished with 76 79-100. He succeeded only in obtaining as high as 80 per centum during the four months of the nine that he was with us.

Table showing the Percentage of Success of Inspectors for each Month.

Dr. Robert D. Nesmith—	Percentage Successful.	Dr. Henry Rockwell—	Percentage Successful.
October, 1874	88.36	October, 1874	65.91
November, “	91.67	November, “	87.50
December, “	94.62	December, “	100.00
January, 1875	93.26	January, 1875	88.89

Table showing the Percentage of Success of Inspectors for each Month—(Continued).

		Percentage Successful.
Dr. Horace R. Williams—		
October,	1874	86.31
November,	"	87.50
December,	"	94.18
January,	1875	96.83
February,	"	94.06
March,	"	98.98
April,	"	98.52
May,	"	95.35
June,	"	92.92
July,	"	91.94
August,	"	85.51
September,	"	86.81
October,	"	98.39
November,	"	96.00
December,	"	95.54
Dr. Abelardo B. De Luna—		
October,	1874	91.45
November,	"	93.48
December,	"	91.67
January,	1875	89.44
February,	"	96.97
March,	"	95.00
April,	"	88.39
May,	"	87.74
June,	"	81.25
July,	"	78.67
August,	"	100.00
September,	"	78.42
October,	"	91.67
November,	"	95.12
December,	"	91.43
Dr. Martin J. Fleming—		
October,	1874	78.99
November,	"	89.25
December,	"	90.48
January,	1875	94.12
February,	"	93.85
March,	"	97.44
April,	"	97.80
May,	"	95.50
June,	"	96.01
July,	"	76.32
August,	"	78.95
September,	"	83.18
October,	"	100.00
November,	"	94.44
December,	"	96.88

		Percentage Successful.
Dr. Wm. J. Purcell—		
December,	1874	99.19
January,	1875	98.69
May,	"	96.88
June,	"	90.48
July,	"	95.83
August,	"	100.00
September,	"	98.72
October,	"	100.00
November,	"	96.97
December,	"	100.00
Dr. Thomas W. P. Flinn—		
October,	1874	73.20
November,	"	83.96
December,	"	78.76
January,	1875	88.54
February,	"	91.84
May,	"	82.76
June,	"	91.80
July,	"	92.11
August,	"	100.00
September,	"	95.40
October,	"	98.98
November,	"	97.22
December,	"	94.37
Dr. Wm. E. H. Post—		
November,	1874	78.71
December,	"	86.75
January,	1875	81.44
February,	"	88.16
March,	"	84.27
April,	"	96.55
May,	"	97.07
June,	"	83.12
July,	"	79.12
August,	"	66.67
September,	"	90.96
October,	"	95.20
November,	"	95.06
December,	"	98.12
Dr. Joseph E. Tucker—		
October,	1874	84.68
November,	"	78.51
December,	"	86.87
January,	1875	90.29
February,	"	86.27
March,	"	72.55
April,	"	78.08
May,	"	73.75
June,	"	76.79

The number of certificates issued for primary vaccinations was 5,764. We did not begin to issue them until March, 1875, and several thousand are now due and will be given out soon.

The following table gives number of cases of small-pox for each week, and number of vaccinations for corresponding week, for the fifteen months, showing that, regardless of the number of vaccinators employed, the vaccinations performed by them were very largely influenced by the amount of small-pox occurring ; and that the majority of the people must believe themselves to be in immediate danger of the contagion of this disease before they can be prevailed upon to be vaccinated :

	NUMBER OF CASES OF SMALL-POX.	NUMBER OF VACCINATIONS.
Week ending October 3, 1874	15	397
" " 10, "	25	1,091
" " 17, "	36	1,126
" " 24, "	26	1,078
" " 31, "	26	1,273
" November 7, "	43	1,070
" " 14, "	53	1,249
" " 21, "	60	1,295
" " 28, "	70	961
" December 5, "	75	1,268
" " 12, "	54	1,483
" " 19, "	94	2,411
" " 25, "	92	2,714
" January 2, 1875	62	2,513
" " 9, "	109	3,257
" " 16, "	99	3,414
" " 23, "	84	3,517
" " 30, "	98	3,074
" February 6, "	95	2,717
" " 13, "	68	2,200
" " 20, "	81	1,687
" " 27, "	75	909
" March 6, "	61	1,126
" " 13, "	70	1,123
" " 20, "	53	2,110
" " 27, "	49	1,691
" April 3, "	57	1,072
" " 10, "	73	1,437
" " 17, "	51	1,543
" " 24, "	84	1,432
" May 1, "	93	1,297
" " 8, "	104	1,588
" " 15, "	97	1,603
" " 22, "	111	3,001
" " 29, "	117	3,297
" June 5, "	126	3,737
" " 12, "	97	5,595
" " 19, "	123	5,076
" " 26, "	113	4,175
" July 3, "	82	3,362
" " 10, "	116	3,103
" " 17, "	102	3,779
" " 24, "	101	3,896
" " 31, "	70	3,502
" August 7, "	49	3,264
" " 14, "	34	2,531
" " 21, "	36	2,083
" " 28, "	26	2,052
" September 4, "	13	1,010

	NUMBER OF CASES OF SMALL-POX.	NUMBER OF VACCINATIONS.
Week ending September 11, 1875	40	809
" " 18, "	24	923
" " 25, "	15	744
" October 2, "	39	784
" " 9, "	31	700
" " 16, "	15	762
" " 23, "	26	849
" " 30, "	37	797
" November 6, "	35	720
" " 13, "	34	996
" " 20, "	34	997
" " 27, "	36	1,063
" December 4, "	39	1,463
" " 11, "	46	1,609
" " 18, "	43	1,365
" " 25, "	56	604
" January 1, 1876	48	629
	4,146	126,003

SCHOOL-VACCINATIONS.

Two inspectors were selected to attend to school-vaccinations, and this work has been done entirely by them. They were required to examine all pupils where permitted, and when vaccination was considered necessary, a notice to that effect was sent to their parents, advising it, and when permission was given, the pupils were vaccinated on the following day. No compulsion was used, except in the cases of children who had never been vaccinated, and even these were allowed to leave the school, and were admitted elsewhere, unvaccinated, on account of the failure of principals to enforce strictly the By-Laws of the Board of Education relating to this subject. The name, age, success attending vaccination, and the number of the school was entered in the vaccinator's book, and as each school was finished, a report was made to this office, which was entered in the Register for school-vaccinations, and a certificate given for each successful vaccination. The vaccinations performed were all examined from the fifth to the seventh day following. Where failures occurred, they were re-vaccinated, and again examined until three attempts to succeed had been made. A complete history of each vaccination is kept in this office. Upon the second visit to the schools it was found that many children who had refused before were willing to be vaccinated, which necessitated more visits than otherwise would have been made. Thus, in order to do this work thoroughly, and get trustworthy records, a great deal of time has been spent which could have been saved if we had not been so thorough. Two or more schools are attended by each man at the same time, as only one day, or two at most, can be spent in any one school during the same week.

When we began work, in 1874, the regulation concerning vaccination in schools was contained in section 145 of the By-Laws of the Board of Education, as follows: "No pupil shall be allowed to attend any school, nor shall any teacher be employed in the same, unless such pupil or teacher has been vaccinated. Every principal of a school shall require satisfactory evidence of such vaccination as a requisite for the admission, employment or continuance of a pupil or teacher; and the principal shall also enter in the Register of the school the dates, as near as possible, of the respective vaccinations of the pupils and teachers."

All our school-vaccinations have been performed strictly in accordance with this by-law. It is, however, indefinite in its wording, and gives the principals so little power that it has been of no practical use to us. "Satisfactory evidence" of vaccination has always been considered by the principals—as far as I can learn—to mean no more than the word of the pupil or teacher that vaccination had been performed once during lifetime. This is plainly evident from a perusal of the results of vaccinations during the past fifteen months in the schools, as it will be seen that a number of children six years of age, and upwards, who had never been vaccinated, have been found in attendance. So that, if the question was asked them upon admission as to their having been vaccinated, the principals were probably deceived. No personal examinations are ever made, and of what use would such examinations be, made by non-medical men who were utterly unacquainted with the subject? But the unvaccinated children in the schools are not the ones from whom we expect trouble, the number being so small, comparatively; nor do we expect trouble from the teachers not being protected against small-pox; but it is the great mass of children in attendance who require re-vaccination. Many of these were born abroad, and vaccinated before coming to this country. While vaccination may have been properly performed upon some, others are only very imperfectly protected, as is shown by the readiness with which they contract small-pox. Many of these children were found to have been vaccinated by their mothers, or some one not qualified. As previously stated in this report, the virus used in such instances is commonly nothing more than serum, mixed with pus, taken from a re-vaccination. This will leave a cicatrix closely resembling that produced by a good vaccination, particularly so for a short time, but will not be of the least benefit in protecting from the contagion of small-pox. Nearly all of the schools in which we have worked thus far have been situated in localities where small-pox has been prevailing to the greatest extent. Those in other parts of the city have not been entered as yet. It seems to us that we have left no means untried to succeed in school-vaccination, being well aware that there is no better or more effective means of controlling an epidemic of small-pox in any large city, than by having all children who are of the proper age to attend school thoroughly vaccinated. But as we have had little or no assistance from educational or health-laws, it is only too evident to us that our efforts have been very untatisfactory, compared with what they might have been with proper aid. We have vaccinated as thoroughly as possible, under the circumstances, in thirty-six public schools, having an attendance of forty thousand six hundred and twenty-one pupils, only fourteen thousand one hundred and eighty-one have been vaccinated, being but 34 91-100 per centum of those in attendance, although these schools were situated in densely populated neighborhoods where nearly all the cases of small-pox have been found. During this period we discovered many children who had never been vaccinated, sometimes on account of the prejudice of the parents, and sometimes from neglect. As the compulsory educational law, entitled "An Act to Secure to Children the Benefits of Elementary Education," was passed on May 12, 1874, of which the following is the first section: "All parents and those who have the care of children shall instruct them, or cause them to be instructed in spelling, reading, writing, English grammar, geography, and arithmetic,—and every parent, guardian or other person having control and charge of any child between the ages of eight and fourteen years, shall cause such child to attend some public or private day-school at least fourteen weeks in each year, eight weeks, at least, of which attendance shall be consecutive, or to be instructed regularly at home at least fourteen weeks in each year in spelling, reading, writing, English grammar, geography, and arithmetic, unless the physical or mental condition of the child is such as to render such attendance or instruction inexpedient or impracticable;" and as the Board of Education has already taken measures for the proper enforcement of it, one obstacle has been removed.

Another, and a much more serious one, has also been done away with, by a revision by the Board of Education of the By-Laws relating to the vaccination of children attending the public schools. This Board has always expressed a willingness to assist us, and has shown that they fully appreciate the importance of school-vaccination. So, also, have school-trustees, by their valuable efforts, been of the greatest assistance to us in the many instances where small-pox has occurred in houses in the neighborhood of school buildings and among school-children. As the number of school-children who were attacked by small-pox was becoming alarmingly large during the month of November, 1875, the following communication was addressed to the Board of Education by the Health Department, in reference to this matter, which brought about the desired end:

HEALTH DEPARTMENT—VACCINATING CORPS,
NEW YORK, November 13, 1875.

The Hon. DAVID WETMORE,
Commissioner :

SIR—Since the organization of this corps, about one year ago, we have vaccinated in the public schools of the city from month to month, as the number of our men would permit. Owing to the prevalence of small-pox, and our limited force, we have not been able to give that attention to it that we anticipated. Yet during this time we have examined and vaccinated in twenty-four public schools, all of which were located where small-pox has principally prevailed; for instance, in the Tenth, Eleventh, Thirteenth, Seventh, Seventeenth and Nineteenth Wards, or in localities inhabited principally by non-English speaking people—such as Germans, Bohemians, Polish Jews and others. The total number vaccinated was 10,590. The total number of certificates issued was 7,465. From the beginning of our work in schools we have tried to induce children to be vaccinated without compulsion, and hoped to vaccinate all who required it. Owing, however, to the great opposition which we have encountered from the above-named foreigners, we feel compelled to ask for some assistance from your Board. Probably the only cases where your aid will be required will be in schools where the neighborhood is pervaded with small-pox to an alarming extent; and in such cases we wish to act immediately and desire the power to compel all children who require it, to be vaccinated. As it has been heretofore, out of a school containing 2,000 pupils, one-half may need vaccination, but we have succeeded only in vaccinating from ten to fifteen per centum. From our examinations we have found a large number of children who had never been vaccinated. This is very apt to be the case with the children born in country places, who have recently moved here. A great majority of these children would not have been vaccinated unless through this means. We find, also, a large number upon whom vaccination has been very imperfectly performed. It has been the custom of teachers to send children home and keep them from school about a week, when it was discovered that there was small-pox in their homes. This is a good idea, but it is of very little benefit unless the pupils have been well vaccinated; for the children themselves are not out of danger until the period of small-pox incubation—about two weeks—has passed. Strange as it may appear, we find instances nearly every day, where the parents of school children, living in infected houses, will persist in sending their children to school, if they are allowed to do so, and will not consent to vaccination under any circumstances. Even if the disease occurs in their own family it makes no difference. With some it seems to be a deep-seated prejudice against vaccination, and with others a most culpable carelessness and indifference to consequences. Of course such instances occur only among the most ignorant class.

To give you an idea of the ravages of small-pox among school children, I will state that the number of cases which occurred from October 1, 1874, to October 1, 1875, was 607; number of deaths, 158; or about 26 per centum.

The unusually large proportion of deaths occurring among children, the most of whom have been vaccinated in infancy, may be accounted for by the fact that many children attacked with small-pox, who have been vaccinated in infancy, have the disease so mildly that medical attendance is not required and parents conceal the knowledge of it from our Board. In fact we may say that the mild cases are nearly always concealed unless discovered by accident. Only the severe cases—those likely to prove fatal—are brought to our notice. Our books show that of these 158 fatal cases, 60 were found dead. This is an appalling statement when we take into consideration the fact so well known to us that a proper vaccination of school children would have reduced these cases to an insignificant number.

As you have expressed a willingness to render us all the assistance in your power to make our work effective, I would suggest that you notify the principals of all the schools to enforce a by-law passed by your Board last winter, to the effect that all children upon whom our officers consider vaccination necessary shall be compelled to have it performed. Vaccinations performed by private physicians are to be accepted the same as those done by our officers and upon whose examination and approval certificates should be issued. This same regulation I would wish applied to janitors and their families. We have already adopted this plan in two colored schools and have not met with a single refusal.

We are anxious to begin this work as soon as possible.

Very respectfuly yours,

J. B. TAYLOR, M. D.,
Inspector of Vaccination.

In response to this appeal for assistance, the Board of Education, on December 15, 1875, adopted an amended by-law relating to vaccination, which is as follows:

No person shall be employed as janitor in any school building unless he or she shall have a certificate from the Board of Health showing that he or she, and each member of his or her family, has been properly vaccinated.

Every principal shall co-operate with such agents of the Board of Health as may be authorized to visit the schools for the purpose of examining and vaccinating the pupils, and shall require a re-vaccination of all pupils ascertained by said agents of the Board of Health not to be fully protected by a former vaccination, and no pupil refusing to be so re-vaccinated, either by the agents of the Board of Health, or by the physician of the family to which he or she may belong, shall be permitted to attend any public school until such requirement is fully complied with.

A certificate of any physician in good standing in his profession, stating that the pupil does not require re vaccination, shall be accepted by the agents of the Board of Health in lieu of a personal examination.

As this is believed to be all that is necessary to aid us in this work, I hope for the year 1876 to give a more satisfactory record of school vaccinations.

The total number of vaccinations performed in the public schools for the fifteen months ending on December 31, 1875, was 17,505 upon 14,181 pupils, of which 10,179 were successful. This is all that we have been able to vaccinate in schools having a registered attendance of 40,621. In schools not directly under the jurisdiction of the Board of Education, the correct registered attendance of which we could not obtain, we have performed 2,384 vaccinations upon 1,998 pupils, of which 1,195 were successful. The following tables show this work in detail, giving the number successful from first and second vaccinations, also a comparison of successes between males and females in Grammar Departments, males and females in Primary Departments, and percentage of success between white and colored pupils:

TABLE OF WORK AND RESULTS IN PUBLIC SCHOOLS, NOT INCLUDING COLORED SCHOOLS.

SCHOOLS.	Attendance.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Primary School No. 1......	1,394	927	540	283	104	283	127	102	54	1,210	667
" " 6......	342	44	34	8	2	8	6	1	1	52	40
" " 9......	443	217	133	73	11	72	25	28	19	289	158
" " 20......	732	420	234	136	50	93	42	35	16	513	276
" " 21......	536	165	119	37	9	40	17	12	11	205	136
" " 22......	641	221	145	69	7	64	28	28	8	285	173
" " 23......	239	52	36	8	8	2	1	...	1	54	37
" " 33......	718	323	199	80	44	61	31	20	10	384	230
" " 35......	475	110	87	19	4	27	15	8	4	137	102
" " 39......	358	131	86	33	12	33	18	13	2	164	104
" " 41......	417	190	114	57	19	57	15	27	15	247	129
" " 44......	177	45	28	12	5	10	5	3	2	55	33
Grammar School No. 4......	1,800	954	599	249	106	249	121	56	72	1,203	720
" " 7......	1,178	451	281	120	50	100	56	27	17	551	337
" " 8......	859	331	211	59	61	59	25	28	6	390	236
" " 9......	450	243	73	111	59	111	55	15	41	354	128
" " 9......	450	288	136	57	95	48	9	17	22	336	145
" " 10......	1,060	384	238	101	45	101	56	41	4	485	294
" " 13.....	1,918	820	427	300	93	252	74	78	100	1,072	501
" " 14......	2,228	370	268	86	16	83	51	28	4	453	319
" " 15......	1,811	889	487	257	145	...	...	...	...	889	487
" " 18......	1,661	305	230	55	20	44	22	16	6	349	252
" " 18......	1,661	820	528	265	27	236	140	81	15	1,056	668
" " 20......	1,871	425	259	112	54	54	23	21	10	479	282
" " 25	1,791	662	345	241	76	224	83	91	50	886	428
" " 27......	1,264	329	246	70	13	68	50	15	3	397	296
" " 34......	1,457	401	226	131	44	106	60	15	31	507	286
" " 38......	1,119	857	579	165	113	165	44	80	41	1,022	623

TABLE OF WORK AND RESULTS IN PUBLIC SCHOOLS, NOT INCLUDING COLORED SCHOOLS—(*Continued*).

SCHOOLS.	Attendance.	Vaccinated First Time.	Successful	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Grammar School No. 40......	1,271	150	117	27	6	...	...	...	...	150	117
" " 42......	2,387	633	363	235	35	160	103	46	11	793	466
" " 49......	2,111	405	289	94	22	80	59	16	5	485	348
" " 53	1,786	373	259	71	43	52	24	20	8	425	283
" " 59......	2,386	588	415	153	20	148	96	48	4	736	511
" " 62.	808	163	81	42	40	42	6	2	34	205	87
Totals..............	39,799	13,686	8,412	3,816	1,458	3,132	1,487	1,018	627	16,818	9,899

Registered Attendance....................................	39,799
Number of Pupils Vaccinated First Time..................	13,686, being 34 38-100 per cent.
" " Examined "	12,228
" found Successful "	8,412, being 68 79-100 per cent.
" Vaccinated Second Time.........................	3,132
" Examined "	2,505
" found Successful "	1,487, being 59 36-100 per cent.

NOTE.—The children in the Primary Schools and in the Primary Departments of Grammar Schools, are from five to ten years of age, while in Grammar Departments they are ten years of age and upwards.

TABLE OF WORK AND RESULTS IN COLORED PUBLIC SCHOOLS.

SCHOOLS.	Attendance.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Colored School No. 1........	139	56	22	26	8	18	5	12	1	74	27
" " 2........	198	196	90	80	26	80	20	40	20	276	110
" " 3........	342	127	62	58	7	56	26	26	4	183	88
" " 4........	143	116	50	38	28	38	5	20	13	154	55
Totals..............	822	495	224	202	69	192	56	98	38	687	280

Registered Attendance....................................	822
Number of Pupils Vaccinated First Time.....................	495, being 60 21-100 per cent.
" " Examined "	426
" found Successful "	224, being 52 58-100 per cent.
" Vaccinated Second Time.............................	192
" Examined "	154
" found Successful "	56, being 36 36-100 per cent.

TABLE OF WORK AND RESULTS IN INDUSTRIAL, CHILDREN'S AID SOCIETY SCHOOLS, Etc.

Schools.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Wilson Home	84	38	41	5	21	5	10	6	105	43
Fifty-third Street	92	56	27	9	8	4	1	3	100	60
Park	103	69	21	13	..	..	..	..	103	69
Eighteenth Street	65	51	9	5	9	1	3	5	74	52
Hudson River	66	39	15	12	14	3	3	8	80	42
German	128	66	34	28	25	10	7	8	153	76
Phelps	36	25	4	7	..	..	..	..	36	25
St. John's Park	65	30	13	22	13	7	2	4	78	37
Rivington Street	140	81	32	27	30	12	7	11	170	93
Cottage Place	87	51	22	14	10	..	..	10	97	51
Sixteenth Street	24	17	3	4	3	..	..	3	27	17
East River	153	72	54	27	47	18	12	17	200	90
Avenue C	106	58	28	20	21	6	6	9	127	64
Water Street	48	27	6	15	6	..	1	5	54	27
Fourth Ward	73	44	11	18	9	3	1	5	82	47
Industrial No. 10	135	52	46	37	41	4	28	9	176	56
Lord	57	41	7	9	4	3	1	..	61	44
Stanton Street	33	25	4	4	3	2	1	..	36	27
Sixteenth Street (Girls)	36	19	10	7	10	..	..	10	46	19
Bethlehem Chapel	40	26	12	2	9	1	8	..	49	27
Sixty-eighth Street	253	154	59	40	36	11	19	6	289	165
Avenue B	45	7	37	1	27	13	14	..	72	20
Fourteenth Ward	129	39	80	10	40	5	32	3	169	44
Totals	1,998	1,087	575	336	386	108	156	122	2,384	1,195

Number of Pupils Vaccinated First Time.................... 1,998
" " Examined " 1,663
" found Successful " .... 1,087, being 65 36-100 per cent.
" Vaccinated Second Time 386
" Examined " 264
" found Successful " .... 108, being 40 90-100 per cent.

GRAMMAR DEPARTMENTS OF GRAMMAR SCHOOLS—MALE CLASSES.

(*Colored Departments included.*)

Schools.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Grammar School No. 4	194	66	76	52	76	26	12	38	270	92
" " 7	100	56	28	16	20	16	3	1	120	72
" " 8	67	43	10	14	10	6	2	2	77	49
" " 9	179	41	95	43	95	46	19	30	274	87
" " 10	90	47	28	15	28	14	12	2	118	61
" " 13	222	63	97	62	97	23	44	30	319	86
" " 14	98	58	40	..	30	12	18	..	128	70
" " 15	203	109	53	41	..	..	..	..	203	109
" " 18	61	47	14	..	13	9	4	..	74	56
" " 20	149	95	40	14	31	12	13	6	180	107
" " 25	76	28	43	5	43	19	18	6	119	47
" " 27	64	55	9	..	8	6	2	..	72	61
" " 38	1,044	711	219	114	211	69	98	44	1,255	780
" " 40	77	56	21	..	..	..	..	..	77	56
" " 42	154	95	50	9	39	26	9	4	193	121
" " 49	141	107	34	..	22	15	7	..	163	122
" " 53	186	112	74	..	23	9	14	..	209	121
" " 59	232	167	65	..	54	35	19	..	286	202
Colored School No. 1	35	13	12	10	10	2	6	2	45	15
" " 2	72	36	25	11	25	6	17	2	97	42
" " 3	72	36	33	3	32	14	16	2	104	50
" " 4	50	23	17	10	17	3	10	4	67	26
Totals	3,566	2,064	1,083	419	884	368	343	173	4,450	2,432

Number of Pupils Vaccinated First Time.................... 3,566
" " Examined " 3,147
" found Successful " .... 2,064, being 65 58-100 per cent.
" Vaccinated Second Time.......................... 884
" Examined " 709
" found Successful " .... 368, being 51 90-100 per cent.

GRAMMAR DEPARTMENTS OF GRAMMAR SCHOOLS—FEMALE CLASSES.

(*Colored Departments included.*)

Schools.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Grammar School No. 4..........	114	37	46	31	46	26	5	15	160	63
" " 7..........	104	59	23	12	23	10	9	4	127	69
" " 8..........	84	51	16	17	16	6	7	3	100	57
" " 9.........	64	24	24	16	24	9	2	13	88	33
" " 10.........	91	52	35	4	35	15	15	5	126	67
" " 13.........	128	46	55	27	55	22	26	7	183	68
" " 14..........	92	72	20	..	12	10	2	..	104	82
" " 15.........	227	123	79	25	..	..	..	..	227	123
" " 18..........	68	57	11	..	9	5	4	..	77	62
" " 20..........	83	46	22	15	6	3	3	..	89	49
" " 25..........	146	83	39	24	39	15	19	5	185	98
" " 27..........	78	54	24	..	21	13	8	..	99	67
" " 42..........	122	73	31	18	15	12	2	1	137	85
" " 49..........	101	65	36	..	15	13	2	..	116	78
" " 53..........	77	52	25	..	19	10	9	..	96	62
" " 59..........	107	78	29	..	25	14	11	..	152	92
Colored School No. 1..........	21	9	9	3	8	3	4	1	29	12
" " 2	124	54	55	15	55	14	23	18	179	68
" " 3..........	55	26	25	4	24	12	10	2	79	38
" " 4..........	66	27	21	18	21	2	10	9	87	29
Totals....................	1,952	1,088	635	229	468	214	171	83	2,420	1,302

Number of Pupils Vaccinated First Time....................	1,952
" " Examined "	1,723
" found Successful "	1,088, being 63 14-100 per cent.
" Vaccinated Second Time..........................	468
" Examined "	385
" found Successful "	214, being 55 55-100 per cent.

Females in Grammar Department.

Total number of Vaccinations................................	2,420
" Examined..................................	2,108
" found Successful..............................	1,302, being 61 76-100 per cent.

Males in Grammar Department.

Total number of Vaccinations................................	4,450
" Examined..................................	3,856
" found Successful..............................	2,432, being 63 7-100 per cent.

Showing Successful in favor of Males.. 1 31-100 "

PRIMARY SCHOOLS AND PRIMARY DEPARTMENTS OF GRAMMAR SCHOOLS—MALE CLASSES.

SCHOOLS.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Primary School No. 1	482	255	159	68	159	75	56	28	641	330
" " 6	31	26	5	..	6	4	1	1	37	30
" " 9	124	78	37	9	37	13	16	8	161	91
" " 20	237	125	112	..	57	23	25	9	294	148
" " 21	90	66	24	..	20	9	11	..	110	75
" " 22	108	73	32	3	29	10	16	3	137	83
" " 23	32	21	5	6	1	1	..	..	33	22
" " 25	44	25	12	7	..	..	..	..	44	25
" " 33	170	117	53	..	32	16	16	..	202	133
" " 35	70	53	17	..	18	11	7	..	88	64
" " 39	71	47	17	7	16	8	6	2	87	55
" " 41	108	78	30	..	30	11	11	8	138	89
Grammar School No. 4	351	258	83	10	83	53	26	4	434	311
" " 7	117	67	34	16	32	16	11	5	149	83
" " 8	98	51	12	35	12	9	3	..	110	60
" " 10	95	60	23	12	23	16	6	1	118	76
" " 13	231	140	23	68	23	12	8	3	254	152
" " 14	88	65	23	..	21	15	6	..	109	80
" " 15	217	131	58	28	..	..	..	..	217	131
" " 18	106	75	31	..	..	..	..	..	106	75
" " 20	96	57	25	14	4	2	1	1	100	59
" " 25	213	109	88	24	88	29	42	17	301	138
" " 27	104	80	24	..	20	15	5	..	124	95
" " 34	184	98	86	..	53	29	24	..	237	127
" " 40	73	61	9	3	..	..	..	..	73	61
" " 42	131	73	54	4	52	36	15	1	183	109
" " 49	91	62	29	..	27	19	8	..	118	81
" " 53	49	37	12	..	6	3	3	..	55	40
" " 59	104	80	24	..	22	17	5	..	126	97
Totals	3,915	2,468	1,141	314	871	452	328	91	4,786	2,920

Number of Pupils Vaccinated First Time	3,915
" " Examined "	3,601
" found Successful "	2,468, being 68 53-100 per cent.
" Vaccinated Second Time	871
" Examined "	780
" found Successful "	452, being 57 94-100 per cent.

PRIMARY SCHOOLS AND PRIMARY DEPARTMENTS OF GRAMMAR SCHOOLS—FEMALE CLASSES.

SCHOOLS.	Vaccinated First Time.	Successful.	Failed.	Absent and Not Examined.	Vaccinated Second Time.	Successful.	Failed.	Absent and Not Examined.	Total Vaccinations.	Total Successful.
Primary School No. 1	445	285	124	36	124	52	46	26	569	337
" " 6	13	8	5	..	2	1	..	1	15	9
" " 9	96	58	34	4	34	10	4	20	130	68
" " 20	183	140	43	..	36	25	4	7	219	165
" " 21	75	46	29	..	20	8	12	..	95	54
" " 22	113	72	37	4	35	18	12	5	148	90
" " 23	20	15	2	3	1	..	1	..	21	15
" " 25	32	18	10	4	..	..	..	..	32	18
" " 33	153	82	71	..	20	11	9	..	173	93
" " 35	40	24	16	..	9	3	6	..	49	27
" " 39	60	37	18	5	17	10	7	..	77	47
" " 41	82	36	27	19	27	9	11	7	109	45
Grammar School No. 4	295	238	44	13	44	16	13	15	339	254
" " 7	136	98	31	7	24	12	8	4	160	110
" " 8	86	65	16	5	16	2	9	5	102	67
" " 10	80	63	15	2	15	8	1	6	95	71
" " 13	245	173	37	35	37	12	15	10	282	185
" " 14	92	70	22	..	20	14	6	..	112	84
" " 15	242	124	67	51	..	..	..	..	242	124
" " 18	123	81	42	..	..	..	..	..	123	81
" " 20	97	60	26	11	13	6	4	3	110	66
" " 25	229	128	57	44	57	26	19	12	286	154
" " 27	83	57	26	..	19	13	6	..	102	70
" " 34	217	128	89	..	53	31	22	..	270	159
" " 42	226	121	97	8	54	29	20	5	280	150
" " 49	72	53	19	..	16	12	4	..	88	65
" " 53	61	46	15	..	4	2	2	..	65	48
" " 59	145	90	55	..	47	30	17	..	192	120
Totals	3,741	2,416	1,074	251	744	360	258	126	4,485	2,776

Number of Pupils Vaccinated First Time	3,741
" " Examined "	3,490
" found Successful "	2,416, being 69 22-100 per cent.
" Vaccinated Second Time	744
" Examined "	626
" found Successful "	360, being 57 50-100 per cent.

Females in Primary Department.

Total number of Vaccinations	4,485
" Examined	4,116
" found Successful	2,776, being 67 44-100 per cent.

Males in Primary Department.

Total number of Vaccinations	4,786
" Examined	4,381
" found Successful	2,920, being 66 66-100 per cent.

Showing Successful in favor of Females........ 78-100 "

The number of children who had never been vaccinated found in the schools cannot be given accurately for the full period of fifteen months, as our records for the first few months are incomplete. It would amount, however, to considerable, judging from those found since. Grammar Schools No. 9 and 18 were visited twice; the first visit was at the beginning of our work. As we did not succeed in vaccinating very many of the pupils, they were again visited several months later, small-pox being prevalent in their neighborhood. Upon the second visit we vaccinated nearly all who needed it.

Probably the cause of our low average of success among colored children is due more to the age of the children, and the fact that they had all been vaccinated within a short time, than to a want of susceptibility. We have not vaccinated enough among colored people to enable us to come to any trustworthy conclusion regarding this question. We have vaccinated in 36 public schools, embracing 78 departments, leaving 83 schools yet to visit.

All the virus used by us in school vaccinations was the old humanized stock, with the exception of a few instances, when we have used virus of the first remove from the calf. The results obtained from the use of the latter have presented no difference whatever from the other, though our experience with it has been rather limited. The virus used in "house to house" vaccinations has generally been not more than twenty-four to forty-eight hours old. On account of our vaccinating each day so many people who had been exposed to small-pox, we have used none but the freshest virus; while in school vaccinations the virus used has often been from one to two weeks old, and we have concluded from this experience, that humanized virus of this age, if carefully kept, is just as effective and will take just as readily as that which is used the same day that it is collected. We have had little trouble following school vaccinations. Two children were found, two or three weeks after vaccination, with axillary abscesses. The first healed very readily after being opened; the second, as it occurred in an anæmic, scrofulous girl, was several weeks in being entirely cured. The other cases complained of were found to have unhealthy granulations at the seat of vaccination which, no doubt, were caused, in part at least, by the rough garment worn. Relief from this irritation and the use of proper applications were all that was necessary to heal them. A great many more complaints were made to the teachers, but upon an examination being made by them or by the parents, it was found that the children complained merely to avoid attending school. The children, as a rule, more generally those in the primary departments, are willing and often eager to be vaccinated; particularly so after it has been performed upon some of their classmates; and if their consent was all that was needed, our percentage of school vaccinations would be largely increased.

BAD RESULTS FOLLOWING VACCINATION.

As already stated, a circular is left with each primary vaccination, directing people what care should be used to prevent interference with the course of the vaccination, with a request to apply to us whenever the results were not satisfactory. I have felt that it would be better for us to take all the blame and trouble upon ourselves, in such cases, in order to prevent people from being prejudiced against having vaccinations performed by officers of this Department. These circulars, together with the re-visitations, have probably enabled us to discover every instance of bad results, except in the cases of those persons who have moved out of the city, or to quarters which we could not find. Besides leaving the circulars, each vaccinator instructs the mother or the person in charge of the child as to what care should be taken of the patient, general directions regarding ventilation, the kind of food which should be given, and to report to us, at once, if anything irregular should be noticed during the progress of the vaccination.

As a result of these precautions many complaints have been made, and in every instance they have received prompt attention. It has taken considerable time properly to attend to this work, time which otherwise would have been spent in vaccinating. One hundred and forty-five complaints were made, in all, out of 24,395 primary vaccinations—making one in about every 147. Of these a number were found to be trivial. In other cases the children were suffering from diseases having no connection whatever with vaccination—such as summer complaint, measles, scarlatina, and small-pox. In all such instances, if medical attendance was thought necessary, the parents were advised to call their family physician; or, if they were too poor to bear that expense, we have attended them gratuitously, or sent them to the hospital. We aim not to interfere with private practitioners or dispensaries where it is possible to avoid it.

Most of the complaints were due to the crusts having been torn off the vaccine vesicles, leaving superficial sores. This, to a great extent, is found to be the result of carelessness in the manner in which the arm is dressed. Very many mothers have a habit of binding up the arm of a child after vaccination with innumerable bands of linen, flannel, or anything convenient, whether clean or dirty, soft or rough, and tying it up quite tightly with strings. This bandage is often left on until the eighth-day examination is made, when the doctor removes it, if allowed to, and tries to impress on their minds the necessity of keeping the arm bare, or, at most, covered with a soft garment which would not tend to rupture the vesicle. The same old bandage, however, is often replaced directly afterward, and allowed to remain until pus is found exuding from it, or running down the arm. As a result of this, the vesicle will be several weeks in healing, and then will never develop a typical vaccine crust, or what is frequently the result, will not heal at all until properly treated. Vesicles covered up in this manner, so as entirely to exclude air. and kept so unusually warm, will seldom run a regular course, and are a great cause of excessive inflammation, axillary abscesses, and other complications. There is no doubt that the irritation caused by tight bandages, under such circumstances, will occasionally even excite erysipelas.

Upon our last visit, from three to four weeks after vaccination, if any children are found who are not perfectly recovered, a physician of the Health Department is sent to attend to them, at once, and continues in attendance until they are well. Some vesicles will rupture without any violence being used, through ill health. Some of the worst cases we have had, and the slowest to heal, have resulted from imperfect ventilation, insufficient and improper food, and other bad sanitary surroundings and influences. A very large proportion of our tenement house babies are scarcely ever taken out of the close, cramped, stifling rooms occupied by the family, during all the cold months, but are compelled to breathe air vitiated by cooking, washing, and scrubbing, with the windows usually closed. Many of these people live in apartments of two small rooms, one the living and cooking room, about twelve by fifteen feet in dimension, the other a small, dark bed-room, large enough for only one bed, and the two often occupied by a numerous family of children. Indeed, we have found apartments no larger than the ones described which have given lodgings to thirty people and upward, children and adults, each night, though this excessive number has been found only among the very poor Italians. It cannot be expected that children will thrive or develop as perfect vaccine vesicles under such surroundings as where the conditions are more consistent with good health. Such babies are very liable to have eczema, the crusta lactea, boils, and other cutaneous eruptions, and if we are obliged to vaccinate them, as is often the case, we expect to have an occasional sore arm.

The bad results following our vaccinations we divide into four classes :

First—Unhealthy sloughing and ulceration at the seat of vaccination............	84	cases.
Second—Excessive inflammation and swelling of arm, and, occasionally, erysipelas.	29	"
Third—Inflammation of lymphatic glands, sometimes resulting in abscesses.......	25	"
Fourth—Cutaneous eruptions of various kinds..............................	7	"

The proper medical attendance required by these 145 cases necessitated about 650 visits. Two deaths occurred from erysipelas, one complicated with meningitis from the beginning, which resulted fatally in two days; the other a plain case of erysipelas in an anæmic child, with surroundings such as almost to preclude the possibility of recovery. Erysipelas was induced in both these instances, no doubt by vaccination. Other deaths have occurred shortly after vaccination, but in no cases could they be directly attributed to this cause, scarlatina and diphtheria being the diseases which usually were responsible for this result.

If caution could always be used in selecting subjects to be vaccinated, in other words, if we were never compelled to vaccinate sickly babies, those suffering from dentition, nor those too young, bad results would certainly be extremely rare. It has not, however, been possible for us to observe this caution, so many of those vaccinated having been exposed to small-pox, or being in great danger of exposure at the time. The total number of bad results, reported to us for our attention, as will be seen, was 145, this out of 24,395 primary vaccinations; while among school children and all other re-vaccinations, amounting to 101,608, we have not had more than a dozen complaints, and only two of these required more than one visit. As all our vaccinations, both primary and secondary, were performed with virus, the same in every respect, we think the fact of the virus not being directly the cause of sore arms in primary vaccinations, is self-evident. Several instances have occurred which have led us strongly to suspect that atmospheric influences have been the causes of quite a proportion of those sloughing sores at the point of vaccination, of which we have had a number. It is well known that a great deal depends upon the person performing the vaccination, and our most successful vaccinators are those who have the smallest proportion of bad results. Still, our best vaccinators have had more or less trouble of this kind. One remarkable instance I will relate. In the summer of 1875, one of our doctors spent several days working in one block of tenement-houses. He succeeded in vaccinating a large number of persons, among whom were thirty babies. Upon examining the primaries on the eighth day, it was found that quite a number of them did not present typical eighth-day vesicles such as we were in the habit of finding; they were already ruptured, and discharging an abundance of lymph and serum. So many presented this appearance that it was remarked, and a close watch was kept upon them. One case of true erysipelas developed at about the fourteenth day, and several of erysipelatous inflammation, followed by sloughing sores, slow to heal. Nearly all the babies vaccinated developed an unusual amount of inflammation, and about one-half of the wounds were very much delayed in healing, and required a great deal of care and attention from us. There was more or less sloughing in all of these, and axillary abscesses were excited in several. The other gave no unusual symptoms and healed very nicely. The virus inserted by this vaccinator was taken from the same babies as that used by about thirty other operators whose vaccinations showed no such trouble. No other inspector was working in that immediate neighborhood, nor were there any cases of small-pox there. All these vaccinations were performed in a row of four-story tenement houses, built exactly alike, all on the same side of the street, having similar sewer connections and occupied almost entirely by German families. Among the large number of re-vaccinations performed in the block, no complaints were made. No cases of erysipelas nor of fever among those who had not been vaccinated were found in any of these houses. I carefully examined the vaccinator's lancet as soon as this trouble was discovered, as I am in the habit of doing with all, but failed to find any cause for it there. The tightly-corked bottle containing the virus was always carried in an outside coat-pocket where the heat from the body could have little, if any, effect upon it. Upon a careful examination, no cases of erysipelas nor of any trouble were found among the babies from whom the virus had been collected, and all vaccinations performed by the inspector subsequently, in other streets, after he had finished this block and before we had discovered anything unfavorable in these vaccinations, ran a perfectly regular course. This vaccinator, though new at the work, was careful and painstaking, and these were the only instances of trouble arising from his vaccinations. What caused this large number of irregular and imperfect vaccinations I have never been able satisfactorily to determine. The following is the result of the vaccinations performed upon these children when examined, upon the eighth day. Out of thirty primaries there were

" Successful "—Those presenting every appearance of eighth-day vesicles	9
Vesicles which were thought too small for thorough protection	2
" Imperfect "—Those that were ruptured and discharging lymph and serum, and those showing too much areola and fever	9
" Retarded "—Those which were not developed as fully as should be at the time of examination	7
Failed	3
Total	30

Only nine were perfectly successful, and the irregularities did not occur among any of them, but with those recorded as " imperfect." Several instances, somewhat similar to this, have occurred in the same unaccountable manner; though no fatal case followed, nor any very severe sickness. The most of them appeared within a short time of our organization.

Among all the cases of bad results which we have seen, we have failed to find a single one showing any indication of syphilitic inoculation; nor have we ever met with a case of this kind in all of our experience. There is a common belief that syphilis is frequently found among tenement-house children. This is certainly a great mistake, for we rarely meet with children of any age who have shown any indication of this. We have seen two or three babies, under three months of age, who have exhibited signs of having inherited this disease, but none over that age.

I would like to give the number of sore arms for each month, to see if there were more caused during the summer months than at any other time; but, owing to the irregular number of vaccinators employed, and to the fact that a large number were appointed at the beginning of the hot weather and dismissed immediately afterward, we cannot give a fair comparison. We are liable to have complaints of this kind at any season of the year, though it seems to us to be rather more common in hot weather, though not so much so as is generally supposed.

PROTECTION AFFORDED BY VACCINATION.

In vaccinating the many hundreds of people that we do, just after their exposure to small-pox, we have found, almost invariably, that if the vaccination arrives at the stage of areola—about the ninth day—before the disease shows itself, its modifying influence is always observed, but that it will not affect it in the least before that period. In other words, vaccination must be performed within three days from the date of exposure, to exert any influence upon the disease. Any attempt to modify it after that period is useless; though, as vaccination at such times can do no harm, we always perform it even up to the time when the first symptoms of the disease appear, as we are never quite certain that all who are exposed to small-pox must necessarily contract it. I have failed to find an instance where vaccination, performed upon the day of the appearance of the eruption, has modified the disease, though it may take, and will often develop a very good vesicle, presenting the same appearance to be seen upon vaccinating a child a few days previous to the appearance of any eruptive disease, such as measles and scarlet fever. The vesicle may reach its regular size, but dries up without passing through the stage of areola. In vaccinating under such circumstances, I have often seen vaccine vesicles develop with variola vesicles which bore such a close resemblance to one another, during the first few days, that the eye of the ordinary observer would fail to discriminate between them. After the tenth day the vesicle forms into a crust, assuming its typical color, which is distinct from the variola vesicle; nor does it become detached so soon. Occasionally, in cases of extreme poverty or sickness, we have been compelled to send a mother suffering from small-pox to the hospital, accompanied by her nursing baby, who had not shown any sign of the disease, and often had been exposed only one or two days. The baby was always vaccinated before going or directly after arriving there. Not a single instance has yet occurred in which the baby has contracted the disease, though nursing the mother, as usual, during the time she would be detained there, from three to six weeks. We are so confident of the protective power of vaccination that we think the risk not half so great under such circumstances, in taking the child to the hospital as in leaving it at home, where it would be deprived of the care and nourishment from its mother.

Probably no more striking instance of the protection afforded by vaccination against small-pox can be found than that of placing young infants in a small-pox hospital filled with patients, on the same day of their first vaccination, without a single example of their contracting the disease. The records of our hospitals will show many such cases.

Our experience has clearly proved to us that when babies are not vaccinated under similar circumstances the result has invariably been directly the opposite. On April 25 last, I was called to see a young married woman, whom I found living on the first floor of a tenement-house occupied by eighteen families. Upon the second visit I diagnosed confluent small-pox. The patient was removed to the hospital, together with her husband, whom I previously vaccinated, as he desired to act as her nurse. She died on the ninth day of the eruption. Although she had always supposed she had been vaccinated in infancy I failed to find any sign of it. As soon as I satisfied myself this was a case of small-pox, I instituted a search for the source of the contagion through the house, at the same time urging all the inmates to be vaccinated. I succeeded in vaccinating a large number, but found two unvaccinated children on the third floor and three upon the top floor whose parents did not believe in vaccination; and, although I called at their rooms several times and urged the necessity of it, they would not allow it to be performed. I also found that a woman suffering from small-pox (whose name appears upon the "Small-pox Record" at this office as having absconded from another part of the city a week or two previously, on account of her neighbors having reported the case to the Sanitary Bureau) had been concealed in a room immediately adjoining the bed-room occupied by my patient, and separated from it only by a thin pine door, all through her illness. These rooms were occupied by her sister, who concealed the case, although the other people in the house were going in and out of her apartments frequently. None suspected that they were exposing themselves to small-pox contagion, and consequently used no precautionary measures. Three days after the first case had been removed I was called to see a child thirteen years of age, living on the same floor, whom I found to have small-pox in a mild form, only four vesicles appearing. She had been vaccinated when a baby, but not since. During the following twelve days the five unvaccinated children were attacked with small-pox, of whom three died, one before being removed, the others in the hospital. The parents of the three unvaccinated children had a fourth child who had been successfully vaccinated in school, a few weeks previously, for which she received a severe beating at the hands of her father. This child, although sleeping in the same room with the other children several nights after they had been taken sick, showed no sign of the disease. In the adjoining tenement-house, occupied by eighteen families, two cases occurred: one, a German woman fifty-six years of age, who had not been vaccinated since infancy, was taken sick May 4, and died on May 8. The other, an American woman forty years of age, who said she had been vaccinated several times, developed but two vesicles and was not confined to her bed. Both of these women repeatedly refused vaccination when the cases occurred in the other house. As appears, eight cases, five of which were fatal, occurred in these two houses. There is no doubt that they all contracted it from the concealed case in the first house. How many occurring in other parts of the city owed their origin to this one we have no means of knowing. The lives of all these five unvaccinated children would probably have been saved except for that strange, unreasonable prejudice against vaccination which so many of the Germans show. All that could be done with them as in other cases constantly occurring in our experience, was to quietly look on until they developed the disease, and then remove them to the hospital so that they would not be the means of communicating the infection to others. I have gone into somewhat extended details regarding these cases as they all occurred in my own practice and I was naturally more interested in them, and also had better opportunities of watching and noting the spread of the disease than I otherwise would have had. All who were vaccinated escaped utterly, though one of them spent two weeks in the small-pox hospital directly after having been vaccinated.

One of our vaccinators called at a tenement-house in Eldridge street, where he found two children, respectively ten months and five years of age, in a German family, who had never been vaccinated. The father refused to allow the inspector to vaccinate them, although he knew that small-pox was in the house. Both children contracted the disease on May 21, and died on May 25.

The same inspector found an unvaccinated baby in a tenement-house in Ludlow street, and in the same family a child nine years of age, who had not been vaccinated since infancy. The parents, who were German, refused to have them vaccinated. Small-pox was in the house at the time. They both took the disease within two weeks from that date, and were removed to the hospital, where the baby died on the fifth day. The other child had a very slight attack and recovered.

On June 16th, a vaccinator called at a large tenement-house in East Eleventh street and offered vaccination in both front and rear houses. They were occupied exclusively by Germans. He succeeded in vaccinating only two persons, and those in the rear house, though he visited the houses several times, and the people knew that small-pox was in that neighborhood. He found three unvaccinated babies in the front house. On July 16, just one month from the time of his first visit, the last of these three children died of small-pox—all of the cases having been concealed until after death. The inspector then vaccinated twenty-one people in the two houses; no other cases have occurred there since.

A family living in East Sixth street had two children whom they refused, under any circumstances, to have vaccinated, nor would any of the older members of the family consent to be vaccinated. A few days afterward one of the children contracted small-pox and died. The case was concealed from the Department. The other child and one adult took the disease from the first case. The child died, the adult recovered.

A man in Allen street contracted small-pox. He was attended by his wife and mother, who refused to be vaccinated, although neither of them had been since infancy. On July 5 the wife was taken sick with small-pox and died.

At No. — Ludlow street there were found two children in one family of Germans whom the inspector could not vaccinate, although small-pox was in the next house. During the next ten days they were both taken down with the disease.

A case of small-pox was discovered in Norfolk street. After it was removed to the hospital the inspector succeeded in vaccinating all the inmates with the exception of one baby, whose parents would not consent to it. He called there several times during the following two weeks, each time trying to persuade the mother to have the child vaccinated, but failed. Upon his last visit the child was found in the first stage of small-pox.

In a large tenement-house in East Third street, containing nine families, all Germans, an unvaccinated child was taken sick with small-pox and concealed until after death. The inspector who called to vaccinate found a family, consisting of the parents and three children, whom he was unable to vaccinate, as the parents did not believe in it. Fourteen days afterward the youngest of these, an infant, took the disease and died. Another, three years of age, came down with it and recovered, to be followed, one week afterward, by the third, who died, making two deaths out of three cases. There were no other cases in the house, as the other inmates had all been vaccinated.

In the adjoining house, containing four families, also Germans, a case was concealed in the basement. An unvaccinated child, three years of age, on the first floor, contracted small-pox and died. The father was then attacked by the disease, and was concealed in a small closet, where he died on the tenth day. An unvaccinated child, four years of age, on the second floor, was next attacked, and also died. The mother of the last mentioned, who had been vaccinated in infancy, had a very slight attack and was removed to the hospital. At the time, she was nursing an unvaccinated baby, three weeks old. This child accompanied the mother and was vaccinated the same day it went to the hospital, after having been exposed to small-pox two days. The vaccination took well and developed a perfect vesicle. At about the tenth day of the vaccination it showed a slight papular eruption which lasted three or four days. Probably it was vaccinia, as no vesicles were developed.

An inspector called at No. — East Eleventh street to vaccinate the inmates of that house. These people had all been exposed to small-pox a few days previously. He found three children in one family who needed re-vaccination, but the parents refused to have it done. Within one month, the youngest of these took small-pox and died. In another family in the same house there were four unvaccinated children whose parents did not believe in vaccination. One of these was taken down each week until they had all been removed to the hospital. During this time, in spite of repeated efforts of the inspector, they would not allow any of them to be vaccinated.

The inmates of house No — East Eleventh street were exposed to small-pox. One of our inspectors called and found three babies whose parents would not allow them to be vaccinated. One week afterward one of them was taken down with small-pox and died. During the following two weeks the other two died of the same disease. The parents of these children were Germans.

At No. — St. Mark's place a concealed case of small-pox occurred in a family living in the basement. About two weeks subsequently, a woman living on the top floor, who had frequently visited the family in the basement, broke out with the same disease, followed the next week by another case in the family where the first one occurred. This last case was reported to the department. When the inspector visited the house he found three unvaccinated children, aged respectively, 3½ years, 2 years, and 14 days, in an Irish family, whose parents were offered vaccination. These were the only unvaccinated people in the house. After several visits the inspector succeeded in vaccinating the two oldest children; but too late, however, as they broke out with small-pox three days subsequently. The youngest child was dying from marasmus at the time, so it was not vaccinated. No other cases occurred here.

During the month of March a concealed case of small-pox was found at No. — Tenth avenue. The patient died before he could be removed to the hospital. He had been sick twenty-one days when discovered, and had not been vaccinated since infancy. His wife, who attended him all through his sickness, and her four children, had been successfully vaccinated by one of our inspectors a few weeks previously, and notwithstanding the fact that they had slept in the same room with this case for twenty-one nights, none of them contracted the disease. This was in a tenement house occupied by about eighteen families; and upon a careful search through all the apartments, five cases of small-pox were discovered and removed to the hospital. All the remaining people were vaccinated and no other cases occurred. None of those who were taken sick had been vaccinated within seven years.

In the month of May small-pox broke out in a German family which consisted of the parents and seven unvaccinated children living in Second street. The people were opposed to vaccination and would, under no circumstances, permit it to be performed upon their children, though they themselves had been vaccinated in Germany when children, on account of the compulsory law. Within one week from the appearance of the disease in the family all seven of the children were taken down with it and removed to the hospital. The parents escaped it altogether.

In the same month the inspector working in that street found at No. — a number of unvaccinated children which he could not vaccinate, in spite of repeated visits. On May 22, two of these children broke out with small-pox; on May 26, two cases; on May 27, one case; on June 5, three cases; and on June 6, one case, making nine in all, which occurred in this one house. On July 18, a girl, 7 years of age, died of small-pox—a concealed case; on July 24, two cases were reported; and on July 26, two others were found in the same house. All of these people had been urged to be vaccinated when the first case occurred, but would not consent.

These are only a few of the very many instances of small-pox occurring where it could have been prevented in the simplest manner, but for the unreasonable prejudice entertained by a great many of the poor people of this city, who are almost invariably found to belong to our foreign population.

PREJUDICES AGAINST VACCINATION.

There are several absurd and dangerous beliefs regarding the subjects of vaccination to be found among the different classes and nationalities of people whom we encounter. Among the poorer Germans the idea is deeply seated and very difficult to eradicate, that vaccination should never be performed upon those who are in danger of exposure to the contagion of small-pox, or who have been already exposed, as those vaccinated under such circumstances are sure to be attacked with the disease. This belief is very general among them, and is encouraged by many of their physicians either through ignorance or design. We can easily see how people entirely ignorant regarding the manner in which this disease spreads might be led to believe that there is some truth in this; but it is difficult for us to understand how an educated physician can encourage it. Small-pox may break out upon a person vaccinated at any time after the date of the vaccination up to the time that the vaccine disease asserts its full protective influence; but that can always be attributed to a prior reception of the contagion of the disease into the system. The occasional occurrence of such instances gives rise to this belief. We have not infrequently found a large family of children unprotected against small-pox who had been exposed to it, and in spite of all our efforts we have been unable to induce their parents to consent to their vaccination. In such cases we have been obliged to stand idly by and allow the disease to take its course. I have already given a few of the numerous instances which have come under our personal observation. Many of these ignorant people have such an acute idea of the protection given by an All-wise Father to His children against all diseases which "flesh is heir to," that they will meekly submit to an affliction from small-pox, and call it "the will of God," instead of taking advantage of one of the greatest boons which He has conferred upon man—a gift which, if properly used, will eradicate from the face of the earth one of the most virulent and fatal of diseases. It is with people such as these that a law compelling the vaccination of infants would seem to be of the greatest benefit, and this is the only class for whom we actually need anything of the kind. But with patience and perseverance, in the future as in the past, we hope and sincerely believe that such prejudices will be overcome, and that we will be able to vaccinate all who require it, at the proper time, without the assistance of any compulsory law. It has been a surprise to us to see how readily a great proportion of the people take to vaccination, and though they will not always consent to be vaccinated by us, still, we impress the necessity of it upon their minds so forcibly that they take the first opportunity to apply to their family physician for that purpose. As every tenement house in the city is visited by us at least twice each year, the subject is kept fresh in their minds, and much more work is accomplished than we get credit for or the general public have any idea of. It is very unfortunate that a physician should be found in this city, or the country even, who is opposed to vaccination. It is a fact that there are many such, nevertheless. From the experience we have had we think that their prejudice arises from a want of success in vaccinating more than anything else. Frequent failures in attempts to vaccinate; erysipelas, abscesses, sloughing and sores when it does take, the causes of which are not understood by them, are usually found to be the origin of their prejudice. It is in the selection of virus that most of their trouble originates. Many men are in the habit of collecting for themselves. This requires considerable experience to become proficient in, and should never be attempted by any one who has not had careful instruction. Still we see men collecting all the virus used by them in a large practice, constantly, who do not even follow rules relating to it which they have no excuse for neglecting—rules such as are considered indispensable by us, and which, if strictly adhered to, would greatly reduce the number of bad results which they so often have. It is their common practice to take virus from a vesicle at any period after the fifth or sixth day up to the time that it will no longer yield moisture, regardless of the extent of the areola surrounding it, and of the contents of the vesicle.

The man who takes virus after the eighth day—the day prescribed by all authorities from the time of Jenner down to the present period—unless he has had experience and can justly be called an expert, runs a very dangerous risk. No doubt the use of such virus will cause unnecessary trouble, such as excessive inflammation and sloughing sores. These are the physicians who condemn the practice of vaccination and do all in their power to bring discredit upon it, not knowing that it is their ignorance of the subject which causes all their trouble. Sore arms and erysipelas will follow the use of the best and purest virus occasionally, but the number of such instances will, as a rule, be in proportion to the care taken in its collection.

It has always seemed to me unfortunate that the word varioloid was ever brought into popular use. Many physicians are in the habit of calling small-pox occurring in people who have ever been vaccinated, varioloid, no matter how long a time has elapsed since that operation was performed, nor how severe the disease may be. When it appears in a mild form they are apt to speak of it to those interested in the patient, in a careless manner, leading them to believe that it is not only comparatively harmless, but not at all likely to be communicated to others. Every physician of experience in small-pox knows that the mildest case may convey the disease in its most dangerous form to others. Where a fatal case occurs in a tenement-house it is not difficult, usually, for us to vaccinate all who require it, living in the same house, and many in the adjoining houses; but if the case is a mild one, particularly if occurring in a child, and the attending physician has once given it the name of varioloid, the people speak very slightingly of the danger and often will not have their unprotected babies vaccinated, even if they live on the same floor, thereby merely indorsing the sentiments expressed by their physicians. Instead of speaking carelessly of a case, no matter how light it may be, the danger which might arise from it should be magnified, if such a thing is possible, and fear of it encouraged instead of being discouraged. No doubt physicians are to a great degree responsible for the careless manner in which people treat this, as well as all other dangerous contagious diseases. We very frequently meet with people, and they are not always to be found among the class called ignorant, who actually believe that varioloid is a distinct disease from small-pox, and it is difficult to convince them to the contrary. How often do physicians, in reporting a case to this Department, remark that it is varioloid in a very mild form, and though occurring in a tenement-house filled with people, state that there is no danger of its being communicated to others on that account. Is it to be wondered at, then, if non-medical people should judge of it in the same manner? If the word varioloid was given up altogether by the profession, its use discouraged and condemned, and the disease called by its proper name, small-pox, in every instance, one great cause for mistaken ideas concerning the disease would be removed. The mere fact of small-pox appearing in persons who have been vaccinated, though that operation may have been successfully performed many years previously, certainly does not justify us in calling the disease when it appears under such circumstances, by a name which is interpreted by many to mean a something utterly different from small-pox.

QUALIFICATIONS OF PUBLIC VACCINATORS.

One of the greatest difficulties we have encountered since the organization of this corps, was the almost entire lack of knowledge concerning this subject displayed by our vaccinators. Very few had any experience, and some had never even seen the operation performed. Nevertheless they supposed it was a very simple operation and that they could begin work at once successfully, without special instruction. After witnessing the results of one or two weeks' work their minds were disabused of this fallacy.

A poor vaccinator will deteriorate virus. The vesicles will not properly develop, even upon healthy subjects, but will present a flabby, soft, irregular appearance, and if an attempt is made to collect virus from them, very little will be obtained. It is lymph from such vesicles which, if used by the same imperfect vaccinators from week to week, will degenerate, and finally, not only fail to develop a vesicle, but will cause only a slight irritation, bearing no more resemblance to a vaccine vesicle than to a blister. The same virus, after being run down very low, if used by a good vaccinator, will soon be brought back to the old standard and will be just as perfect in its action, as thoroughly protective against small-pox as originally. It is a singular fact that there are men who would ordinarily be called successful vaccinators, that is, they may have but few absolute failures, still, whose primary vaccinations are utterly useless to collect virus from, as they never present the characteristics of vesicles suitable for that purpose. The vesicles may be so small that the true phenomena of the vaccine disease are not thoroughly imparted; or may be so large and irregular in shape as to rupture by the eighth day, or even earlier. Such vaccinations as the latter are often accompanied by violent febrile symptoms which, if occurring in an infant undergoing dentition, may cause convulsions, or, if the child's blood is in an unhealthy condition from scrofula or malaria, or is suffering from insufficient or imperfect regimen, it may cause the vaccination to run an irregular course, developing axillary abscesses, erysipelas, erythema, or sloughing sores at the point of vaccination, which are often slow to heal and cause a serious loss of the child's strength. Whether vaccinations such as these afford the protection against small-pox which is desired, or not, is a question which time alone will determine. Unquestionably they do cause a certain amount of prejudice against vaccination in the minds of parents, often to such a degree that they will refuse to have other children vaccinated until exposure to small-pox compels it; and then frequently it is too late to afford protection. That poor vaccinators will give rise to trouble such as I have narrated, where others, using the same virus and working under like conditions, will very rarely do so, is a fact which has been demonstrated beyond question during our past fifteen months' experience. Even though such vaccinations may prove to be thoroughly protective against small-pox, prejudice excited in the minds of the people is of the most serious consequence to us. We have no legislative act compelling vaccination, and consequently are obliged to rely upon their willingness to be vaccinated, and unless they believe implicitly in its harmlessness and in the protection which it affords, all our efforts to vaccinate them will be futile. The remark has become proverbial among our inspectors that where a sore arm has been caused in a tenement-house, it is utterly useless to attempt to vaccinate there again.

Every practitioner of experience knows how deeply seated is the belief, more particularly among ignorant people, that evil results are always caused by bad virus, or, as they say, "a bad 'pock.'" There is a certain amount of truth in this statement, but we must not forget that a poor vaccinator is more frequently the cause of it.

To be a good public vaccinator requires a thorough understanding of the manner of vaccinating, great patience, a willingness to put up with all kinds of abuse from ignorant people, and tact in presenting the importance of vaccination to them so plainly as to overcome all scruples, prejudices and objections which may exist in their minds. We, as medical men, must impress upon the minds of our patients the necessity of their being vaccinated by those qualified to do it, and no physician should undertake the operation unless he regards himself as competent to do so. This is a subject not so difficult to comprehend nor so hard to learn. Any physician with proper instruction will soon be able to tell the difference between a perfect and an imperfect vesicle and the cause of imperfect vesicles being formed; also how to scarify and to apply virus so that he may almost guarantee success; how to collect virus, and the subjects to collect from.

There are many physicians in this city even, where greater opportunities are afforded for becoming conversant with this subject than almost anywhere else, who cannot distinguish a perfect vesicle, one thoroughly protective, from a vesicle which will be of very little protection. This branch of medical science requires actual experience rather than theoretical knowledge to make one proficient. No matter how much may be read upon the subject, nor how often the physician may have seen the operation performed, until he tries it himself under the eye and guidance of an experienced man, he will never get the correct idea of it nor will he become an expert vaccinator.

The medical profession, and the people generally, must learn that vaccination is not such a trivial operation as that it can be performed by any one, and in any manner, and with fluid taken from any kind of vesicle, whether upon the very first day it will yield virus or up to the time that it ceases to flow. They should keep before their minds the fact that vaccination is imparting a disease which must run a regular course, and must be watched over with the most scrupulous care; and the young practitioner must learn that there is a great deal of responsibility attached to every vaccination, and that each operation must be performed with care, neatness, and cleanliness; that the instruments used, the manner of scarifying, the size of the scarification, the kind of virus employed, the appearance of pure, eighth-day lymph, the kind of subjects to take virus from, must be all considered and thoroughly understood. Those, and those only, who possess all these requirements, should attempt to vaccinate, if vaccination ever is to be proved to the general public to be the prophylactic against small-pox that we know it to be. Vaccinations performed by mothers of families, by nurses, and the proverbial "old women," and even by inexperienced medical practitioners, bring discredit upon the practice. It is not unusual for us to find whole families of children who have been vaccinated by their mothers, and, upon close inquiries, we generally learn that the material was obtained from a neighbor's child, or even an adult who had been vaccinated some time previously. It is generally taken from re-vaccinations, and at the time when the vesicle begins to run. The matter, for such it generally is, is obtained as it is running from the arm, and the instrument used is a needle. This will sometimes show some effect, and occasionally cause a very bad sore, which is supposed by them to be a sure sign of success; and when these children are taken down with small-pox all faith in vaccination is at an end with their parents, and with many others who are aware of the circumstances. It is difficult to persuade those persons to be vaccinated who have lost children or friends by small-pox after it was supposed they had been well vaccinated. This class constitutes the majority of the American people who are prejudiced against vaccination.

DIFFICULTIES ENCOUNTERED IN COLLECTING VIRUS.

We find considerable objection to our opening vesicles for the collection of virus, among all classes and nationalities, though it is more apparent among the Germans. It is impossible to overcome this objection with many, but with others, where we promise to hold ourselves responsible for any trouble that they apprehend, their consent can be gained. A few wish to have the vesicles opened, more particularly among the English and Irish, as they believe that it relieves the inflammation and swelling which appear upon the ninth and tenth days. As arm to arm vaccination is practiced almost entirely in their countries, they have seen the harmlessness of opening the vesicles. This objection is not so serious as to interfere with our work, though it causes delay in collecting a sufficient quantity of virus. The objection which the most of them raise is that it causes irritation and delays healing. Our experience, however, proves this not to be the rule, but rather the exception. When care is used in puncturing, and not too much lymph taken from the vesicle, that is, when the vesicle is not irritated so as to be noticed at the time, by the constant rubbing of the quills over it, no unusual amount of inflammation will be produced. Nature seems to relieve very large, plump vesicles by rupturing them and allowing a part of their contents to escape, often as early as the eighth day, but more frequently the ninth, thereby probably diminishing the inflammation, and I believe that, by collecting the lymph as it flows, in a careful manner, there is no danger whatever of there being any more inflammation, if as much, than there otherwise would have been.

We seldom have complaints made about babies from whom virus has been collected, though we would be sure to hear from them if such did occur, on account of the pains taken to watch them subsequently, and the directions which we give the people, in order to hear from them if trouble follows. They feel that they have a greater claim upon our attention, and often bring their babies for us to look at, fearing that the inflammation is too great, when the disease is found to be running a perfectly regular course. Of course the infants that we collect from are among the healthiest we have, those least likely to develop complications, and this fact must be taken into consideration.

SMALL-POX IN PUBLIC INSTITUTIONS.

Considerable small-pox has occurred in the various asylums, reformatories, and charitable institutions of the city during the past fifteen months, notably so in the New York Institution for the Deaf and Dumb, Tenth avenue and One Hundred and Sixty-second street. One of the Teachers in this institution died of the small-pox, in the building. No precautions to protect the inmates were taken, as the nature of the disease was not known until the persons who had been exposed began to be taken down with it. Between twenty and thirty cases occurred in rapid succession, showing that the source of the contagion was from the teacher. As soon as possible we vaccinated all the inmates, numbering 559, both employees and pupils. The spread of the disease was stopped at once, not a case occurring after vaccination. A large number were found never to have been vaccinated.

In the Juvenile Asylum, situated in the same part of the city, one case occurred directly afterward, but as that was removed as soon as discovered, and the inmates vaccinated on the same day, no other cases followed. In this building 560 were vaccinated, 44 for the first time, though they were all over six years of age. Our success at the first vaccinations in this institution was eighty-five per cent. Instances similar to these have occurred in several other institutions, and where we have been allowed to vaccinate freely, the disease has been immediately arrested. The large number of unvaccinated children found in these two institutions shows a great degree of neglect on this subject, although this large proportion of primaries is no greater than will usually be found in the other institutions of the city containing children. Upon our recommendation, hereafter all children, upon admission to these institutions, will be compelled to be vaccinated, unless the operation has recently been performed upon them.

VACCINATION AMONG THE VAGRANTS.

In March, 1875, several cases of small-pox occurred among the vagrants who congregated in the city at the beginning of the cold season. As nearly all found nightly accommodations in the various police stations, we, with the assistance of the police, began a system of vaccination among them, and succeeded in vaccinating all who required it. Our plan was to choose particularly cold nights, such as would not admit their sleeping out-doors, and to place one vaccinator at each police station. As no compulsion could be used, they were informed by the police, as they applied for admission, that accommodation would be furnished them, if they would submit to vaccination. Nearly all consented without hesitation; though some would go to other police stations, only to have the same thing told them there, and finally were obliged to submit to it. Six days afterward they were all examined, as far as possible, and re-vaccinated, if necessary, and again examined. By this means 1,793 vagrants, male and female, were vaccinated; all, in fact, who lodged in quarters furnished by the city. We can pretty safely say, from the thorough manner in which this was done, that very few of them escaped vaccination. There has not been so much small-pox among this class since. The success obtained was very good, though we could get no positive information in regard to every individual vaccination, as they were constantly shifting around from one police station to another, seldom sleeping in the same place on two consecutive nights, and also going to and coming from the neighboring cities. The same plan was followed in all the private lodging-houses, as far as possible, with equally good success.

DISTRIBUTION OF CIRCULARS AND PLACARDS AS A MEANS OF INCREASING VACCINATION.

At the beginning of June, 1875, as small-pox was very prevalent, and in order to give people who were employed during the day-time an opportunity to be vaccinated, circulars were issued by this Department, in both English and German—of which the following is a copy—which were distributed by our Inspectors through all the tenement-houses they visited. The following is the circular:

HEALTH DEPARTMENT,
NO. 301 MOTT STREET, NEW YORK.

During the month of June, 1875, free vaccination will be performed at No. 301 Mott street every evening, from 7 to 9 o'clock, and on Sundays, from 10 A.M. to 12 M., and 3 P.M. to 5 P.M. This, in addition to the ordinary time for vaccinations. The Board of Health hopes that those who are unable to be vaccinated at other times will avail themselves of this opportunity.

By order of the Board. C. F. CHANDLER, *President.*

EMMONS CLARK, *Secretary.*

A great many vaccinations were performed by this means, which could not otherwise have been obtained. Large pasteboard placards, in English and German, showing the advantages arising from vaccination, and directions how to have it done gratuitously, were nailed up in tenement-houses, street cars and public buildings, which largely increased the number of our applicants. All requests for vaccination, sent by mail or messenger, were always promptly attended to, and every means in our power taken to impress physicians and the public generally with the fact that we would send inspectors to vaccinate all who could not call at our office; and physicians who had patients too poor to pay for vaccination, could obtain virus from us gratuitously for that purpose; or, by addressing a communication to us, giving the names and addresses of the persons wishing to be vaccinated, we would send an inspector willingly and promptly.

As soon as a case of small-pox was reported at this office, a vaccinator was sent, at once, to attend to the vaccination of the inmates of the house from which the case was reported. If it was in a tenement-house, each room was visited, and vaccination urged; also adjoining houses, those directly opposite, and in the rear, where they were in close proximity. The people were warned of their danger, and if they would not consent to be vaccinated by our officer, were urged to apply to their family physician. A copy of the following card, filled out, was left in each apartment; one was also left at each private house, factory and shop in the neighborhood:

SMALL-POX NOTICE.

The Health Department notifies you that there is a case of small-pox at No......................street, and advises you to see that all the inmates of your house, who require it, are vaccinated immediately. Upon application at this office, gratuitous vaccination will be performed, or by sending a notice requesting it, a physician will call at your house at once for that purpose.

WALTER De F. DAY, M.D., *Sanitary Sup't, Health Dep't.*

301 Mott St., Room No. 38.

These cards directed many people to us, were the cause of a great many requests for vaccination being sent, and also induced many to apply to their family physicians and dispensaries for vaccination. Each infected house was visited at intervals of from five to seven days until the period of incubation of the disease had entirely passed. This was done for the purpose of examining the former vaccinations, and also to discover if any other cases had broken out.

By adopting this course, it is impossible for persons to conceal cases from us, although the attempt is frequently made; and many cases are discovered, nearly always at the beginning of the disease, before sufficient time has elapsed after its appearance to cause much danger from contagion. When the subsequent visits are made, the inspector selects a time, if possible, when he will find most of the residents at home, and if there are any that cannot be reached by this means, he leaves his address, with directions to have them call at his office for that purpose, or he will call again in the evening or on Sunday, if more vaccinations can be obtained by so doing.

Besides the many cases of small-pox discovered by this means, several were found walking the streets, not knowing where to go, and one, a colored man, badly broken-out with small-pox, was found by one of our inspectors in a crowded street car. All such cases were removed to the hospital at once. I regret that we cannot give the full number of small-pox cases found by the vaccinators during this period.

SALES AND GRATUITOUS DISTRIBUTION OF VACCINE VIRUS.

The sales of vaccine virus during this period have amounted to $1,229.08. We did not begin selling until after January, 1875, and during the following summer sold but very little, as we supplied city physicians with all they wished gratuitously, according to the instructions of our Commissioners. Another reason for our sales not being larger, is, that we have done little advertising, so that few physicians, druggists and Health Departments have been aware that we offer it for sale. It, very wisely, has been the desire of our Board to increase the use of vaccine virus by every means possible, viz.: supplying all physicians who apply to us, with all they might require to vaccinate their poor patients with, all public institutions—charitable and otherwise—free of charge, rather than to increase our sales.

The amount of virus gratuitously furnished to physicians not connected with the Health Department, to vaccinate patients in public and private institutions, was 13,246 quill slips and 58 crusts. Among the institutions which we have supplied with virus may be named nearly every one in the city, and many throughout the State. We freely offered to furnish vaccinators, as well as virus, when our other labors would permit; although where there were resident physicians in the institutions they generally attended to it themselves.

With all virus sold or given away we send directions such as the following, regarding its use, and if these directions are strictly followed, guarantee a reasonable amount of success:

DIRECTIONS FOR THE USE OF QUILL SLIPS.

Scarify over a surface the size of a small penny, so as to bring a slight trace of blood or serum. Place the outside of the square-cut or charged end of the quill in contact with this surface, holding it there and gently rubbing for a moment, and the virus will be dissolved and removed.

NOTE.—Vaccine, in any form, should always be kept in a dry, cool place.

DIRECTIONS FOR THE USE OF VACCINE CRUSTS.

The surest method of vaccinating is to insert a small part of the crust, by a valvular incision, in or immediately under the skin, as superficially as possible, so that it will remain without band or plaster. To accomplish this any narrow-bladed lancet is suitable.

NOTE.—Vaccine crust dissolved in water or glycerine becomes poisonous in a few hours from decomposition.

DIRECTIONS FOR THE USE OF VIRUS IN CAPILLARY TUBES.

Break off each end of the tube. Place one end to the mouth, and gently blow the virus upon a piece of glass lightly smeared with glycerine, to prevent too rapid evaporation. When an ordinary lancet is used, it would be well to have the arms scarified previous to removing the virus from the tube. When Whittemore's instrument for vaccinating can be obtained, time will be saved by its use, as it obviates the necessity for scarifying.

In conclusion I wish to add a few words in testimony of the willingness invariably shown by the gentlemen connected with the Vaccinating Corps, both the inspectors and the clerks, to perform all the duties assigned to them, though often called upon at unseasonable hours and at times when they could reasonably have expected to have "been off duty." On account of the many cases of small-pox that have occurred during this period our duties have demanded our undivided attention, not only upon all regular working days, but frequently upon holidays, Sundays, and evenings. Although no extra compensation has been received for such services, nevertheless, these gentlemen have always cheerfully responded to such calls of duty. I cannot say too much in praise of the vigilance displayed by them in their efforts to control the epidemic of small-pox in our midst, to popularize vaccination and advance this science.

Very respectfully,

JAMES B. TAYLOR, M. D.,
Inspector of Vaccination.

Glanders and Farcy.—By the direction of the Board, I caused the following circular to be distributed among the veterinary surgeons of the city. Through reports made, at its request, by Dr. A. F. Liautard, its consulting veterinary surgeon, the Board has been made aware of the prevalence of glanders and farcy among the horses of the city. As, however, the diseases are rarely communicated to man, it seemed best to restrict the efforts of this bureau in controlling them to enlisting the co-operation of those who are naturally brought most in contact with them.

HEALTH DEPARTMENT—NEW YORK.

At a recent meeting of the Board of Health of the Health Department, section 121 of the Sanitary Code was amended so as to read as follows, viz. :

SECTION 121. That no person shall keep, retain, or employ, or allow to be kept or retained, at any place within or adjacent to the built-up portions of the City of New York, any horse, ass, or colt, having the disease known as glanders or farcy, but shall at once report the fact to the Board of Health of said city, and under the direction of the Sanitary Superintendent, shall remove such animal, in the manner designated by such Sanitary Superintendent. No animal having glanders or farcy, or any contagious disease, or that shall die thereof, shall be removed, disposed of or exposed in any street or public place in said city without a written permit from said Board of Health, and then only in accordance with the terms of such permit.

The following was adopted as an additional ordinance of the Sanitary Code, viz. :

SECTION 185. That every veterinary surgeon who is called to examine or professionally attend any animal within the City of New York, having the glanders or farcy, or any contagious disease, shall, within twenty-four hours thereafter report, in writing, to the Board of Health of such city, the following facts, viz. :

First.—A statement of the location of such diseased animal.

Second.—The name and address of the owner thereof.

Third.—The type and character of the disease.

C. F. CHANDLER,
President.

Hydrophobia.—A number of cases of this fearful disease occurred in the summers of 1874 and 1875, and attention having been directed to the subject through the press, much alarm was excited among the people, and very vague ideas were found to prevail as to the nature of the disease, and its symptoms in the dog. With a view of giving accurate information on the subject, at the request of the Board, Dr. John C. Dalton prepared the following card, which was widely circulated, and Inspector Charles P. Russel was requested to submit a report upon the history of the disease, which will be found in the latter part of this volume.

HYDROPHOBIA.

HEALTH DEPARTMENT,
No. 301 MOTT STREET, NEW YORK.

At a meeting of the Board of Health, held June 30, 1874, the following series of rules (submitted by Dr. John C. Dalton), for the prevention of hydrophobia, were approved, and ordered printed :

I.—A dog that is sick, from any cause, should be watched and treated carefully until his recovery.

II.—A dog that is sick and RESTLESS is an object of suspicion. This is the earliest peculiar symptom of hydrophobia.

III.—A dog that is sick and restless, and has a DEPRAVED APPETITE, gnawing and swallowing bits of cloth, wood, coal, brick, mortar, or his own dung, is a dangerous animal. He should be at once chained up, and kept in confinement until his condition be clearly ascertained.

IV.—If, in addition to any or all of the foregoing symptoms, the dog has DELUSION OF THE SENSES, appearing to see or hear imaginary sights or sounds, trying to pass through a closed door, catching at flies in the air when there are none, or searching for something which does not exist, there is great probability that he is, or is becoming, hydrophobic. He should be secured and confined without delay.

V.—In case any one is bitten by a dog whose condition is suspicious, the most effective and beneficial mode of treatment is to CAUTERIZE THE WOUND AT ONCE with a stick of silver nitrate, commonly called "lunar caustic." The stick of caustic should be sharpened to a pencil point, introduced quite to bottom of the wound, and held in contact with every part of the wounded surface until it is thoroughly cauterized and insensible This destroys the virus by which the disease would be communicated.

By order of the Board,

C. F. CHANDLER, *President.*

EMMONS CLARK, *Secretary.*

Tenement Houses.—As must always be the case in New York, a large proportion of our work has been done in the tenement-houses which are so distinctively a feature of our city. The maps on diphtheria and small-pox show that these diseases have prevailed more extensively in tenement-house districts, and so does the mortality from other diseases. Irrespective of visits to contagious diseases in tenements, the inspectors have made over 80,000 visits to this class of buildings in the course of their usual routine inspections.

Comparatively little has been accomplished in improving the construction of these dwellings, for it is doubtful if much more can be hoped for in that direction if they are to be erected on an ordinary city lot, although the newer ones invariably have the modern improvements in plumbing, and there is a strongly marked desire, on the part of landlords to secure, as far as possible, the advantages of light and ventilation. This is shown more especially in the large number of apartment houses, or " French flats " being built in various parts of the city. In the older portion of the city, too, many dilapidated structures have been torn down and more convenient and commodious ones substituted. We have continued to insist upon the insertion of stench traps under the sinks and basins of halls and living rooms, and many of the inspectors have directed the waste-pipe to be extended two feet through the roof. In the more densely populated districts, particularly where there were front and rear tenements, we have continued the ventilation of the privy vaults by the process with which the Board is familiar, *i e.*, by a shaft consisting of "an eight-inch earthenware pipe, laid at least six inches below the surface of the yard, from the vault to the nearest wall of the building of the greatest altitude on the premises, and there connecting with a metallic shaft of like diameter, extending not less than two feet above the roof of such building." This contrivance tends to diffuse the foul odors from the privy into the air above the house tops ; it mitigates a nuisance which it cannot always entirely abate.

The value of our work among the tenement-houses can only be properly estimated by those who watch it for a series of years. The inspectors bear abundant testimony to the improvement in cleanliness, and in all measures tending to the health of the inmates, of these dwellings, but constant pressure from the Board is needed to insure proper attention from both landlords and tenants. The appointment of efficient housekeepers is becoming more general, an important feature in the work of the Board in this especial direction.

House Drainage and Plumbing.—Although this subject has attracted much attention among the intelligent classes, its importance is in no danger of being overestimated. Very much has been done in this direction by the officers of this Bureau during the last twenty months. Apart from the orders of the Board few days have passed that requests from the wealthier classes have not been made for inspections of their houses. These requests have often been at the suggestion of the family doctor, after the occurrence of a severe disease or its fatal termination. The ignorance upon this vital subject, even among the better informed, is as common and lamentable as it is perhaps natural. Hundreds of cases might be related where, in houses filled with all that taste could desire and gold procure, a siphoned trap or the absence of a trap, an imperfect joint or an old brick drain or riddled soil-pipe—defects easily remedied if known to exist—have undermined the health of adults and slain the little ones. The traps and pipes and drains are often out of sight, and often are never thought of until it is too late. Impressed with the importance of this subject, and of the difficulties surrounding it, I had the honor of addressing to the Board the following report :

SANITARY BUREAU,
March 23, 1875.

To the Board of Health of the Health Department, COL. EMMONS CLARK, *Secretary :*

The Board of Health has long recognized the importance of proper house-drainage. All sanitary authorities agree that the presence of sewer-gas in our houses is one of the most fruitful causes of sickness and death. No one who has studied the subject can doubt for a moment that this subtle poison is directly responsible for many sudden attacks of obscure disease, ending fatally; for the preparation of the system for the more aggravated forms of diphtheria and other grave diseases, and for those milder forms of blood-poisoning, which betray themselves by aches and pains and general ill-health.

Even in the better class of houses, when the attention of the inspectors is called to them by their inmates, or by physicians in attendance on their sick, it is not uncommon to find that the plumbing designed to carry off the refuse from basins and closets, conducts sewer-gas into the sleeping-rooms, while in the tenement-houses the providing of traps, the ventilating of soil-pipes, and the remedying of faulty plumbing constitute a very considerable part of the orders of the Board. Defects of this kind are due sometimes to the false economy of the architect, sometimes to the culpable ignorance or carelessness of the plumber, and sometimes to the ignorance and apathy of the inhabitants. The occupant of the house, unless he has been its builder also, generally knows absolutely nothing of the existence or location of the traps, or the condition of the house-drains. When the inspector is called to trace a stench to its source, he is often troubled to say positively whether a trap exists, especially when purposely mislead by the owner or agent.

The important relation which house-drainage bears to the public health is in no danger of being over estimated. If it were pecuniarily practicable, a systematic inspection, in this direction, of every house in the city, by experts, would without doubt signally reduce our mortality; but such a course is precluded at present by want of means.

During the past year 900 new buildings were erected, and 1,300 underwent repairs so extensive as to bring them under the supervision of the Department of Buildings.

There is no reason why that Department should not co-operate with this one. It is willing to do so, if requested by the Board. The architect should be required, with his other specifications, to submit to the Superintendent of Buildings specifications of the plumbing, including the location of all basins, closets, sinks, traps, soil-pipes, waste-pipes, cellar-drains, and sewer connections, together with the material of which they are to be constructed; and a copy of this specification should be on file in this Bureau, for the use of citizens and our inspectors. Some salutary lessons would thus be taught the plumbers and architects; the attention of the public would be directed to this most important subject, and the work of the inspectors would be greatly facilitated.

A copy of this report was forwarded by the Board to the Department of Buildings, and some time afterwards a communication was returned, inclosing a specimen of what it was supposed was desired by the Board of Health. This communication was referred to me by the Board of Health, and was returned December 14, 1875, with the following remarks:

"Excepting the care of contagious diseases, the most useful work of this Bureau has been and still is the inspection of house plumbing and drainage. With all their experience, the inspectors often find the greatest difficulty in determining the existence of traps and the location of the drains. It is indisputable that much disease and many deaths are due to defects in that part of the house which should be safe beyond a peradventure.

"These defects, which are difficult of detection and expensive to correct in a house already built, can be readily avoided, at an inconsiderable outlay, during the construction of the building.

"The plan which the Board has approved is entirely feasible, strikes at the root of great evils, and will in the future save many lives and much expense and annoyance. I take it for granted that the Department of Buildings has the power, as I know it has the disposition, to insist on such conditions of plumbing and house drainage as have been adopted by the highest sanitary authorities both in this country and abroad.

"The necessary clerical work devolving on that Department will be insignificant compared with the results secured. For example, during the last year, if I am rightly informed, but 900 new buildings were erected; while, during the week ending December 6th, but seven specifications were filed.

"I would respectfully propose that the Department of Buildings be requested to insist, in accepting a specification, upon the following particulars, viz.:

"1st. That the iron soil-pipe and the waste-pipe be extended through the roof for two feet, at their maximum calibres, and that the waste-pipe be independent of the soil-pipe.

"2d. That every basin, sink, and bath-tub be properly tapped.

"3d. That the pipe connections be lead-caulked, or otherwise securely sealed.

"4th. That the location and direction of the house-drain be accurately indicated by a diagram, with measurements, or by measurements from walls or other permanent land-marks, so that they may readily be reached when necessary.

"5th. That the Department forbid the use of brick or wooden drains as substitutes for pipe-drains, and that separate sewer connections be required when practicable."

This report was received and adopted by the Board of Health, and a copy forwarded to the Superintendent of Buildings.

The following interesting report, on Plumbing and House-drainage, is from Assistant Inspector Thomas J. Nealis, Sanitary Engineer:

W. De F. Day, M.D., *Sanitary Superintendent :*

Sir—I have the honor to submit the following report of special inspections throughout the city, made by me from May 1, 1874, to December 31, 1875 :

Since the last annual report my attention has been almost entirely given to the sanitary condition of dwellings, of all classes, as they were affected by the sewer connections, or by the general construction of the plumbing work. The medical profession having been advised of the provision made by the Health Department for this class of inspections, we are frequently called upon by them to examine the houses of patients where diseases of a contagious character have appeared, with a view, if possible, to trace such disease to its source and prevent a recurrence from the same cause in the future. As it became more generally known that this Department caused such inspections to be made at the request of any citizen, the demand on us from all sections of the city greatly increased, and I am confident that the results obtained from such inspections have been most satisfactory. Our efforts in this direction have been ably seconded by some of the best men in the medical profession, and citizens of the highest standing, dwelling in the best sections of the city, daily call upon us for such examinations, when they have failed to get relief from other sources. In our inspections of dwellings the sewers have been frequently found out of repair, with defective joints, through which sewer gas passed into the cellar, thence to be diffused throughout the house. The plumbing work also has been found sadly out of order in many particulars; soil and waste-pipes unventilated and waste-pipes frequently untrapped, which conditions have caused such emanations from the sewer into the dwellings as entirely to vitiate the air and render it unfit for respiration. This has been found to be the case notably where our attention has been called by physicians to dwellings in which cases of contagious disease had arisen. In one instance I was called to a house in East Forty-third street, occupied by a gentleman who had resided there for some time, and whose children during the entire period of such residence exhibited symptoms of poisoning from sewer gas to such an extent that the physician who attended them had doubts of their recovery. Foul odors were frequently perceptible in the rooms without any apparent cause; an examination by his plumber failed to enlighten him as to the cause of the trouble, and he was assured that the premises were all right, and that the sickness in his family was not caused by any defect in the plumbing work or sanitary arrangements of the house.

By the advice of his physician he made application to this Department to have his house examined, when the fact was revealed that the waste pipes leading from the safes beneath the wash bowls were entirely unprovided with means to prevent the escape of sewer gas into the sleeping rooms. In fact, an application of a light to one of the pipes referred to showed that sewer gas was conveyed into the rooms, of such a foul and poisonous nature as to extinguish the light and ignite the escaping gas, which burned with a blue flame, indicating the presence of marsh gas, sometimes called light carbureted hydrogen. In these premises the waste pipes were found unventilated, and the foul, compressed air had no means of exit except into the sleeping rooms of the family, they being the only rooms in the house provided with the basins mentioned.

Numerous instances might be cited which came under my observation where families have suffered in a similar manner from like causes, and reports upon which have been regularly forwarded to this Department at their stated meetings; and I have no doubt that at the present time hundreds of dwellings in this city are in a similar condition. From this it will be seen that it is of the utmost importance that all house drains should be well ventilated, in order that they may not be mediums for the conveyance of sewer poisons into dwellings. A frequent cause of trouble in unventilated pipes is the change of temperature to which they are subjected by the alternate discharge of hot and cold water, causing such an expansion and contraction of the foul air, always present in such pipes, as to produce a partial vacuum, so that when the expansion takes place the sewer gas is forced through the water in the traps, and when condensation follows a partial vacuum is created which draws the water from one or more of the traps and leaves the house unprotected until the water in such traps is again renewed, which may not be for hours. Should this occur at night, after the house is closed and the family have retired to rest, the air in many of the rooms will be completely vitiated and rendered in the highest degree dangerous to health and life. Again, during heavy rainfalls, when the main sewers are doing more than is ordinarily required of them, the air in such sewers is frequently compressed into one-half the space it occupied, and necessarily escapes at the weakest point of resistance, which is almost invariably found to be the drains leading to the dwellings. These drains in the better class of houses are connected with waste pipe arteries that lead to almost every sleeping room, and in tenement-houses connect with each kitchen sink, which frequently adjoins a bed-room. When the air in the sewers is compressed, as before mentioned, it produces a pressure in the house drains equal to a column of water thirty-four feet in height, a pressure which no trap that I have yet seen connected with an unventilated pipe can withstand. In fact, experience has shown, and the best authorities on sanitary science sustain it, that placing traps in drains or waste pipes, without giving them adequate ventilation, is entirely worthless.

When we consider the poisonous nature of the gases present in sewers, and how readily they find access into dwellings, it should be made an imperative duty on every house-owner to ventilate his soil and waste pipes in a proper manner. In many of the houses complained of and examined, lead soil pipes were found, which had been in use from 15 to 20 years, and which were found to be completely perforated from the action of the gases, and sometimes open at the joints where the connection was made with the traps.

This corrosion and defect in such pipes was almost always found on the upper surfaces, and consequently would not show a water leakage, for the reason that there never was a pressure of water on the pipe; but they permitted a constant supply of foul air to escape into the house. Brick drains are still found, and always defective; the bricks becoming loose from the cement, permit sewer gas and vermin to enter the cellar, and also allow the sewage to permeate the soil, causing emanations that almost invariably call the attention of the occupants to its foul condition, and frequently result in disease and death before the source is discovered.

Where such lead soil-pipes and brick drains have been found, a removal of them has been ordered by this Department, and properly constructed soil-pipes and sewers provided in lieu thereof, which have never failed to give the requisite relief. Earthenware sewers have also been found, sometimes broken, and more frequently with defective joints, which also permitted an escape of sewage and sewage gas into the premises. This condition, however, is principally due to careless and incompetent workmanship, for which there is no excuse. Iron soil and waste pipes, if properly caulked with lead, are the best; but even this class of work is sometimes found of an inferior character. In some of the very best class of dwellings, where the mechanical portion of the work, that is, the connection of the pipes, has been done in the best manner, defects have been found, caused by too much trapping, without adequate ventilation; as, for instance, a trap has been found at the base of the soil-pipe, with the pipe extending above the roof, while immediately adjoining was an independent waste-pipe leading from the wash-basins and bath-tubs, also trapped, but without the slightest ventilation; a result of which was, that at every discharge of water into the waste-pipe, an equal amount of foul air was displaced and forced into the bed-rooms in which the wash-basins were situated.

In tenement-houses, it is a common thing to find the lead traps under the sinks, dipping into an iron waste-pipe, without any luting or connection whatsoever. When first put in, however, a putty or cement joint was made, which the vibration of the pipes gradually loosened, and eventually it dropped out. As these pipes frequently adjoin bed-rooms, they are never safe, and house-owners should be compelled to have such connections made, by means of an iron sleeve or coupling passed over the lower portion of the lead trap and into the iron waste-pipe, and then caulked with lead. The lead waste-pipes leading from the safes beneath water-closets, bath-tubs, and wash-basins are frequently another source of complaint, and very justly so, for the traps which are intended to protect them from the emission of sewer gases are found obstructed and often exhausted; the pipes intended to supply such traps with water become stopped with grease or soap from the wash-bowls, and fail to act; and, as a result, foul air is often admitted. Safe waste-pipes are only safe when entirely independent of the sewer, and connected by means of a separate pipe with the cellar or kitchen sink.

Another source of evil, found for the most part in tenement-house districts, is the privy-vault as at present constructed, and particularly mentioned in my report published in the Annual Report of the Health Department for the year 1873. While it is admitted that water-closets are not adapted for tenement-houses, owing to the readiness with which they get out of order; it is also claimed that the present privy-vault is nothing more than a foul cess-pool which often ventilates the main-sewer, and holds in solution for months fetid organic matter, undergoing decomposition and emitting poisonous and offensive exhalations which find their way into the rooms of the occupants of houses immediately adjoining. While the ventilating shaft recommended by this Department is a decided improvement in such vaults, it seems beyond question necessary to alter their construction so that they may not be a means of conveying foul gases into close, pent-up yards and that their contents may be more readily and frequently discharged into the main sewer, as recommended and illustrated by a diagram shown in the annual report before referred to.

In regard to the plumbing work of houses, I would suggest before closing, that the drain in each house be provided with a trap properly ventilated and placed near the outer wall, for the reason that, no matter how well pipes are laid or plumbing work put in when first constructed, such work will get out of repair and necessarily permit foul air to enter houses, owing to the higher temperature of the rooms; that the drain in the cellar be carefully laid and connected; that the soil-pipe be constructed of iron, caulked with lead and extended full-size two feet above the roof. That each independent waste-pipe be also extended above the roof; that the waste-pipes from the basins, sinks and wash-trays be independently trapped; and that where a lead trap or pipe is connected with an iron pipe, it be done through an iron sleeve, with joints well caulked with lead. I would further suggest that the surfaces of all cellars be well cemented to prevent dampness.

The following is a summary of the inspections made within the time specified:

Privies and Water-closets	inspected	1,597
Drains	"	1,241
Cellars	"	1,527
Stables	"	142
Schools	"	39
Public Buildings	"	28
Private Institutions and Homes	"	33
Total		4,607

Respectfully submitted,

THOMAS J. NEALIS,
Assistant Sanitary Inspector.

Vacation of Cellars.—The very thorough inspection of cellars below Houston street in 1872, and of those above Houston street in 1873, and the vacation of those unfit to be used as living rooms in the latter year, has left little more to be done than to see that they were not reoccupied. An inspection was directed in the spring of 1874, of all cellars vacated by the Board the year previous, and I vacated the following by order of the Board, having found them reoccupied without a permit:

No. 226 William street.
" 55 Chatham street.
" 9 James street.
" 70 James street.
" 14 Dover street.
" 336 Water street.

No. 337½ Water street.
" 338 Water street.
" 20 Catharine street.
" 22 Catharine street.
" 244 Elizabeth street.
" 28 Gansevoort street.

In most cases it was possible to accomplish vacation without the aid of the police, and in some eighty-nine instances, with a view to prevent a repetition of the offense, it was thought advisable to sue the owners for violations of sections 18 and 19 of the Sanitary Code. Sixteen applications for permits to reoccupy cellars were received, of which but four were granted. Improvements in these cases had been made in light and ventilation, which rendered them suitable for habitation.

Dangerous Buildings.—From time to time it has become my duty to call the attention of the Board to buildings unfit for human habitation, either by reason of their being so infected with disease as to be likely to cause sickness among the occupants, or because they were dangerous to life by reason of their want of repair. Some of these were vacated under section 11, chapter 908, Laws of 1867, until thoroughly cleansed and disinfected, or until the needed repairs were made; while others, requiring more radical changes, were referred to the Superintendent of Buildings. The following are the buildings referred to:

No. 48 Marion street.
" 102 Oliver street.
" 20 Leonard street.
" 20 Essex street.
" 20 Tompkins street.
" 55 King street.
" 471 Washington street.
No. 941 Sixth avenue.
" 24 East Sixtieth street.
" 34 Sixth avenue.
" 321 East Fortieth street.
" 317 East Fortieth street.
" 316 Grand street.
" 342 West Sixteenth street.

Stable Manure.—The larger dealers in stable manure gave bonds, in 1873, to remove the accumulations of the winter of 1873–'74 in the early spring. The storing of manure in the city during the winter months seems often unavoidable at present, and fortunately it is comparatively inoffensive in cold weather, but it should never be allowed to remain after the first of May.

As the result of the persistent action of the Board, after some little delay the manure dumps were removed, and the grounds drained, and in some cases filled in. The spring of 1875 was very backward, and the Board, after granting several extensions on that account, at length declared the bonds of Kane & Savage forfeited. The smaller dealers, who had shown a disposition to comply with the orders of the Board, were not punished.

In November, 1875, Messrs. Kane & Savage were arrested by the order of the Board for violations of the Sanitary Code, and were held in bail to await the action of the Grand Jury.

In the spring of 1875 the manure men were summoned to meet the chairman of the Sanitary Committee and the Superintendent in relation to the imperfect observance of the sections of the Sanitary Code regulating the carting of manure and stable straw. In consequence of this conference the manure carts were repaired and freshly named and covered, and the hours for loading them across the sidewalk were changed, so as to allow the loading until 10 A. M. during the entire year, and at any time after 6 P. M., provided a permit from the Sanitary Superintendent had been obtained to that effect.

Sale of Paris Green.—By the direction of the Board I distributed a large number of the following circular among druggists and dealers in paints:

POISONS.

SANITARY BUREAU, HEALTH DEPARTMENT,
No. 301 MOTT STREET,
NEW YORK, July 22, 1875.

To Druggists, Dealers in Paints, and others:

At a meeting of the Board of Health, held July 21, 1875, the following preamble and resolutions were adopted:

Whereas, The sale of Paris Green is now very general, and suicides by persons with this material have become alarmingly frequent;

Resolved, That the Sanitary Superintendent be and that he is hereby directed to enforce § 15 of the Sanitary Code, and to cause a printed notice of the same, and of the law with regard to the sale of poisons, to be served upon all persons who keep this and other poisonous materials for sale.

SANITARY CODE.

SEC. 15. That no poisonous medicine, decoction, or substance shall be held for sale or sold, except for lawful purposes and with proper motives, and by persons competent to give the proper directions and precautions as to the use thereof; nor shall any bottle, box, parcel, or receptacle thereof be delivered to any person unless the same is marked "Poison," nor to any person who the party delivering the same has reason to think intends it for any illegal or improper use or purpose.

LAW REGULATING THE SALE OF POISONS.

SEC. 7. It shall be unlawful for any person, from and after the first day of June, eighteen hundred and seventy-two, to retail any poison enumerated in schedules A and B, as follows, to wit:

SCHEDULE A.

Arsenic and its preparations, corrosive sublimate, white precipitate, red precipitate, biniodide of mercury, cyanide of potassium, hydrocyanic acid, strychnine, and all other poisonous vegetable alkaloids and their salts, essential oil of bitter almonds, opium and its preparations, except paregoric and other preparations of opium containing less than two grains to the ounce.

SCHEDULE B.

Aconite, belladonna, colchicum, conium, nux vomica, henbane, savin, ergot, cotton-root, cantharides, creosote, digitalis and their pharmaceutical preparations, croton oil, chloroform, chloral hydrate, sulphate of zinc, mineral acids, carbolic acid and oxalic acid, without distinctly labeling the bottle, box, vessel, or paper in which the said poison is contained, and also the outside wrapper or cover, with the name of the article, the word *Poison*, and the name and place of business of the seller ; nor shall it be lawful for any person to sell or deliver any poison enumerated in said schedules A and B, unless upon due inquiry it be found that the purchaser is aware of its poisonous character, and represents that it is to be used for a legitimate purpose. Nor shall it be lawful for any registered pharmacist to sell any poisons included in schedule A, without, before delivering the same to the purchaser, causing an entry to be made, in a book kept for that purpose, stating the date of sale, the name and address of the purchaser, the name and quality of the poison sold, the purpose for which it is represented by the purchaser to be required, and the name of the dispenser ; such book to be always open for inspection by the proper authorities, and to be preserved for reference for at least five years. The provisions of this section shall not apply to the dispensing of poisons in not unusual quantities or doses upon the prescriptions of practitioners of medicine.

By order of the Board.

Scavenging.—The rigid inspection maintained over the scavengers in 1873 has been continued, special inspectors having been detailed to this work with the effect of decidedly lessening the number of citizens' complaints, which used so frequently to reach us, as to the slovenly and offensive manner in which this process was performed. Every step taken towards improvement in scavenging has been obstinately opposed by the old tub-scavengers. On the 10th of June, 1875, the Board passed the following preambles and resolutions, restricting the time of scavenging to the hours of daylight :

Whereas, In the opinion of this Board, night scavenging can and should be conducted in an entirely inoffensive and innoxious manner, and the process should be constantly subject to the severest scrutiny and inspection ; and

Whereas, The necessary supervision of the night-scavengers when working by night has been found practically impossible, and reports are frequent of abuses in the work which cannot be followed by detection and punishment because of the hour and the darkness when the work is performed ; and

Whereas, The present manner of conducting this business without the use of improved and the most efficient and perfect apparatus, successfully tried and adopted in other cities, creates a frequent nuisance detrimental to health and dangerous to life ; and

Whereas, By the performance of the work at night, houses are opened and dangers thereby arise, and foul air and gases are frequently disseminated through crowded buildings at a time when the most who can receive injury are present therein, and also the noise of carts at night in the streets is injurious to invalids and detrimental to health ; and

Whereas, All these difficulties may be remedied by compelling the performance of the work of scavenging in daylight and under inspection ; therefore

Resolved, That the Sanitary Superintendent grant permits for scavenging during the hours between sunrise and sunset only, and that the work be not performed at any other time.

The following is a more extended report upon scavenging by Dr. E. H. Janes, Assistant Sanitary Superintendent :

Of all offensive odors that are from time to time inflicted upon the residents of large cities, there is none more disgusting and sickening than that emanating from the carts of night-scavengers. The old system of emptying privy-vaults by the use of buckets and carts, the contents of the vault being conveyed in an open bucket through the alley-way or hall of the house to the street, and there emptied into the cart waiting to receive it, was offensive in the extreme, the odor permeating the entire neighborhood, and often remaining about the premises for days after the work had been done.

As early as 1872 the Health Department took the initiative step towards improving the method of doing this kind of work, by requiring that it be done by means of some air-tight apparatus. This gave rise to considerable controversy, and even legislation was brought to bear against the rigid enforcement of the measure, to such an extent that the efforts of the Health authorities were but partially successful. Two different methods of emptying vaults were adopted, one consisting of a pump and hose by means of which the contents of a vault were transferred from the vault to a tank in the street, and the other consisting of tubs which after being filled were tightly covered and taken on a truck to the place of disposal. This latter system but partially met the requirements of the Sanitary Code, as will be seen by the following extract from a report on the subject which I presented September 21, 1875 :

" * * * * * It is not necessary to rehearse here the persistent efforts from time to time made to improve the existing methods of emptying privy-vaults, nor to repeat the many arguments advanced in favor of abolishing the 'bucket and cart,' and adopting measures more in accordance with the present stage of civilization and refinement. These are all matters of record of the Health Department, and constitute a portion of the history of sanitary effort in New York. It must therefore suffice at present to say that section 102 of the Sanitary Code requires that the work be done by means of some air-tight apparatus, and in such a manner as to allow of the escape of no noxious or offensive odor, either while removing the contents of any vault or transporting them through the city to their place of destination.

"With a view of complying with this ordinance, the night-scavengers have adopted a system of working with tubs, to which tight covers may be fitted, in place of the 'bucket and cart system' in use from time immemorial. The tubs filled and the covers adjusted, are then placed on trucks to be removed to the place of disposal, where the contents are transferred to a boat, which conveys them from the city. This system, though a step in advance, is far from being in strict accordance with the spirit of section 102 of the Sanitary Code, which requires that the contents of vaults, sinks, and cess-pools shall be removed therefrom by means of an air-tight apparatus. How far this mode of operating tends to answer this requisition may be imagined from a brief description of the operation.

"The first step towards emptying a privy-vault is an attempt at disinfecting or deodorizing its contents, which, from the complaints received from time to time, appears to be little else than an attempt. This having been attended to, and the floor of the privy-house having been removed, the tub is placed in a convenient position, and filled with material removed from the vault by means of a long-handled dipper. In this operation it is plain to be seen that the material thus transferred is most thoroughly exposed to the open air in being poured from the dipper to the tub, and that the same exposure is repeated when the tubs are emptied of their contents at the dock. This latter is accomplished by means of an open shute, one end of which rests upon the string piece of the pier, and the other resting on the deck of the vessel at the opening to the hold. It is along this open shute that the successive streams of semi-liquid filth flow to reach their destination in the hold of the boat, the time occupied in emptying one truck-load of these tubs being, by my own observation, about thirty minutes, and during this time, if the observer chance to stand at the windward, his senses may not be annoyed ; but, should he find himself at the leeward, he will be assailed with a most disgusting and offensive odor. We see from this that a privy-vault cannot be emptied of its contents, and the accumulation be disposed of, without the offensive material being twice exposed to the open air—once during the slow process of being dipped from the vault and poured into the tub, and again during the half-hour occupied in emptying the tubs. It is no wonder then, that, foreseeing this, the night-scavengers themselves condemned the system in a memorial to his Honor the Mayor no longer ago than last March, using on that occasion language too strong to be misunderstood, claiming that dipping the material from the vault and pouring it into tubs would have the effect to manifold the nuisance attending what is known as the bucket and cart system.

" Besides this system of working with tubs, adopted by the old night-scavengers, there are, as is well known, other parties engaged in the same branch of labor, using different kinds of air-tight apparatus, by means of which the work can be done in a perfectly clean and inoffensive manner. The first of these is known as the 'Odorless Excavating Company,' already long enough in the field, not only here but in other cities throughout the country, including our National Capital, to prove beyond a question the efficacy of their apparatus as it regards neatness, dispatch, and freedom from offensive odor. The apparatus with which this company operates consists of an exhaust and force pump with hose attached, by means of which the contents of a vault are removed therefrom and conducted into an air-tight tank or receiver ; from this receiver a tube extends to a charcoal furnace into which the gases from the receiver are conducted, and where they are deodorized and destroyed. When the machine is in operation, as the tank fills, the air contained therein is forced out through this tube into the furnace, thus allowing the escape of no offensive odor. The efficiency of this apparatus is no longer a matter of experiment ; it has met with favor wherever introduced, and in a number of cities it does the entire work of scavenging.

" The next company to which I shall call your attention, is one recently organized under the name of the 'New York Cleaning and Disinfecting Company.' The principle upon which this company operates is similar to that last mentioned, though differing somewhat in detail. Instead of a pump applied to the vault, the receiver is connected with a steam apparatus, by means of which it is exhausted of air ; when, by pneumatic pressure, the contents of the vault are forced rapidly through the previously adjusted hose, to supply the vacuum formed in the receiver. It may be added here, that the air from the receiver comes in contact with steam heated to 300° F., and is thus deprived of all offensive odors. I have on one occasion witnessed the operation of this apparatus, and found it to surpass anything of the kind hitherto brought to my notice. On that occasion, a privy-vault containing 56 cubic feet of the ordinary material was emptied of its contents in about three minutes after the adjustment of the hose, and in nine minutes from the time of commencing, the work was completed, the hose washed out, and ready to be removed to the next field of action. By either of these systems time is saved, not only in removing the material from the vault, but the tanks may be readily discharged through a hose, or covered shute, without any unnecessary exposure—a favorable contrast, when compared with the emptying of a truck-load of tubs, each filled with night-soil, in the manner above mentioned.

" Doubtless the scavengers do as well as they can under their present system, many of them, I believe, using every effort in their power to do their work without annoyance. But the system is at variance with the provisions of the Sanitary Code ; it is the subject of frequent complaints, and is altogether behind the spirit of the age. * * * * * "

On the 7th of December, 1875, the Board passed the following resolution, *i. e.:*

> *Resolved*, That the Sanitary Superintendent be and is directed to issue permits to empty privy vaults, cess-pools, etc., to those only who are provided with suction apparatus connected with air-tight tanks.

In consequence of this action of the Board, many of the scavengers have already signified their intention of procuring the proper appliances.

Fat and Tallow Rendering.—A careful and systematic inspection of the establishments, both great and small, where lard and tallow are melted, and the adoption of proper apparatus, have, for the most part, relieved the city of those unpleasant fatty odors which were so justly and widely a source of complaint in the spring and summer of 1873. Occasionally complaints against the large establishments on the east and west side have been made to this bureau, and it has sometimes been necessary to stop their work temporarily. These complaints have invariably been due either to imperfect processes, or to carelessness on the part of the operatives. Under favorable conditions it is possible to conduct this business in an entirely inoffensive manner.

Many of the smaller pork packing houses scattered through the tenement districts have from time to time caused their neighbors to shut their windows during the stifling hours of our summer nights, but for the most part these establishments have eagerly availed themselves of the suggestions which the inspectors were enabled to give them, and the evil has been remedied. Even if it were practicable to send this industry out of the city limits, it must be remembered that the trimmings of the pork furnish a cheap and nutritious food to the surrounding poorer classes. A firm but conservative policy, with persistent pressure upon these offenders, has gradually brought them into a position in which the objections to their business are reduced to a minimum.

Inspection of Unripe Fruit.—On the 23d of July, 1875, in consequence of the prevalence of diarrhœal diseases among young children, the Board appointed John McCauley, G. Alvord, John H. Fowler, and Francis Reilly, as Inspectors of Fruit, and they were continued in this service until September 14 of that year. During that time, protected by the police, they seized and condemned—

	Barrels.	Baskets.	Crates.	Boxes.	Bags.	Total.
Melons	976	..	..	..	..	976
Apples	233	23	28	13	..	297
Peaches	1	68	514	1	..	584
Pears	30	69	4	2	..	105
Grapes	6	..	..	3	..	9
Lemons	2	..	..	1	2	5
Tomatoes	..	..	3	..	..	3
Onions	39	..	..	..	..	39
Cucumbers	4	..	2	..	..	6
Potatoes	..	..	..	..	50	50
	1,291	160	551	20	52	3,679

They also visited the following number of stores, stands, groceries, etc., at many of them making small seizures, *i. e.*: 761 stores, 369 street-stands, 385 groceries, 52 licensed venders, 37 commission-houses, and 1 market.

They distributed large numbers of the following circular, especially among the commission merchants, with the effect of preventing much objectionable fruit from being sent into the city.

Sanitary Bureau,
No. 301 Mott street, New York.

The attention of dealers in fruit and vegetables is called to the following resolution of the Board of Health, and to section 34 of the Sanitary Code :

"*Resolved*, That the Sanitary Superintendent be and is hereby directed to superintend the inspection of fruits of every description, with instructions to seize, condemn and cause the destruction of all unripe, decayed and unwholesome fruits offered for sale, as provided by the Ordinances of this Board."

"Sec. 34. That no decayed or unwholesome fruit or vegetables shall knowingly be brought "into said city, to be consumed or offered for sale for human food, nor shall any such articles "be kept or stored therein."

If forwarders and dealers will bear in mind the inevitable seizure of all unwholesome fruit and vegetables, they can readily save themselves much trouble and expense.

WALTER De F. DAY, M. D.,
Sanitary Superintendent.

Plumbago Works.—In the autumn of 1874 the plumbago or black lead works at No. 174 Forsyth street were closed by the Board, after repeated hearings, and after the proprietors had exhausted every means at their disposal to render their business inoffensive. The works were located in the midst of a densely populated district, and the finely powdered plumbago was wafted into the neighboring houses, soiling the freshly washed clothes, mixing with food, and thus compelling the closing of windows, and interfering with proper ventilation. This was an undoubted hardship, and a direct interference with the supply of fresh air to which every one is entitled; and the business was of such a nature as to be conducted as well without the city limits as within it.

The following paragraph is from the pen of Dr. E. H. Janes, the Assistant Sanitary Superintendent:

SLAUGHTERING AND SLAUGHTER HOUSES.

It is only about ten years since the business of slaughtering animals for food could be carried on without restriction in any part of the city. The only interest which it was necessary for a person about to enter this business to consult, was his own convenience, or whether the price of property was such as to meet his ability to purchase or lease the necessary ground in the desired locality. The location once selected, which was usually done without any reference to facilities for drainage, a building was erected, generally remarkable for its cheapness and want of adaptation to the business; or perhaps, some old building, which had for many years served as a stable or a workshop, was remodelled so as in some imperfect manner to meet the necessities of the case. In some instances, not even a sewer connection was made, but the blood and washings were all discharged into the street gutter, and allowed to flow along said gutter to the nearest receiving-basin. As the business of slaughtering was thus scattered over different portions of the city, it not only multiplied the number of centres from which foul odors were disseminated, but it also subjected large numbers of citizens to the annoyances and dangers of cattle driving through many of our crowded streets and avenues.

Step by step this business has been concentrated on either side of the city, until the present limits have been reached, which can only be regarded as progress in the right direction, and as preparatory to still further concentration.

Early in the year 1874, the question of restricting the business within still closer limits was very strongly agitated by the Board, and during the spring of that year, I, in company with the Chairman of the Sanitary Committee, and the Sanitary Architect, Mr. Pfeiffer, made a careful inspection of the slaughter-houses then existing within the built-up portions of the city, with a view of studying their sanitary condition. The result of this inspection and of the deliberations which followed, was the adoption of an ordinance requiring all slaughtering, south of One Hundred and Tenth street, to be conducted in abattoirs located directly upon the water front, etc.; this ordinance to take effect in July, 1876. The report which I made on that occasion was embodied in the "Report of the Sanitary Committee of the Board of Health on the Concentration and Regulation of the Business of Slaughtering Animals in the City of New York," presented in October, 1874, and to which I beg to refer you for particulars.

In this place I beg leave to present the reports of Dr. E. H. Janes, Assistant Sanitary Superintendent, and Assistant Sanitary Inspector, A. S. Goldschmidt, Ph. D., on the source of certain foul odors which prevailed in the eastern part of the city.

OFFENSIVE ODORS FROM MANUFACTURING ESTABLISHMENTS.

It is not always easy for a sanitary inspector to trace to its proper source each one of the various odors which infect the atmosphere of a large manufacturing city. There are certain odors, such, for instance, as those from gas-houses, rendering establishments, tanneries, petroleum refineries, etc., which are well known, and at once recognized ; but there is often a mingling of offensive odors, each due to a separate cause, and which may mislead for a time the most competent inspector concerning the question of the true nature and source of the more dangerous ones.

Early in the year 1874, complaints were frequently made at this office, of certain offensive odors which were principally noticed in the eastern portion of the city, from Tenth to Thirtieth street. In many instances a very offensive odor escaped from the house-drains into the cellars and houses of the complainants, and was also at times very offensive in the streets. The odor which escaped from the house-drains was described as "something like petroleum, though much more offensive," while that affecting the out-door atmosphere appeared to be a mixture of petroleum, sewer-gas, refuse of gas-houses, etc. This nuisance became of so serious a nature that the Board directed that it be made a subject of special study, and thereupon Special Inspector Goldschmidt and myself were selected to make the necessary investigations, in accordance with the following resolution passed at the meeting of the Board held June 9, 1874 :

"*Resolved*, That Assistant Sanitary Superintendent Janes and Special Inspector Goldschmidt be and are hereby detailed, under the direction of the Sanitary Superintendent, to investigate the subject of the complaints in respect to foul odors in the eastern part of the city, between Fourteenth and Thirtieth streets, and ascertain and report to this Board at the earliest possible time the source of the odors complained of."

In giving the result of these investigations, I cannot do better than to quote the report which I made at the time. Inspector Goldschmidt's report will be found immediately following this :

" Before attempting to give a detailed account of the different sources of foul odors in the above-mentioned district, and of the effort heretofore made towards their abatement, it may be well to premise that in every large city devoted in part to manufacturing interests, there are, to a greater or less extent, emanations developed from what are known as 'offensive trades,' and which it is necessary to control by some special appliances capable of effecting their deodorization, their combustion, or their destruction by some other chemical means. Indeed, it may be said, that among the large number of manufacturing interests of the day, involving the employment of chemical agents, destructive distillation or disintegration of organic substances, or even the preparation of animal matter for human food, very few, if any of them, can be regarded as absolutely free from odors or emanations which are offensive to a greater or less portion of the community in which they are located ; and hence the Sanitary Inspector, in attempting to trace to its original source any impure exhalations detected in the atmosphere, soon finds himself dealing with a combination of odors of which the preponderating one he finds it difficult to recognize ; and as these for the most part escape from the tops of high chimneys, they are often far more apparent at a considerable distance from, than in close proximity to, the works from which they emanate, making it difficult for him to say that it is this and not the other thing which is the source of the annoyance. Cattle-yards, stables and slaughter-houses, fat-rendering, soap and candle making, tripe and sausage making, dye-houses and tanneries, may be mentioned as a few among the large number of establishments which exist in all large business towns, and which send forth their emanations to contaminate the atmosphere. For this reason all establishments of the kind should be under sanitary surveillance, and measures taken to control the escape from them of offensive odors or gases, to say nothing of establishments of a larger magnitude, as those devoted to the manufacture of illuminating gas, and kindred occupations, the emanations from which, unless controlled, are often very offensive and extend a great distance from the seat of operations.

"The offensive odors which have from time to time annoyed the residents of that portion of the city indicated by the foregoing resolution, are not all caused by occupations confined within said limits, as we shall see further on ; but the special causes of complaint which are located in the said district, and which must form the principal basis of this report, are three in number, to wit : the sewerage of the district, the manufacture of illuminating gas, and the manufacture o the sulphate of ammonia from ammonia water, one of the by-products of the gas-works.

"In regard to sewerage proper, but little can be said toward solving the problem now before us, as doubtless much that is supposed to emanate from the sewers is in fact due to other sources.

"The topography of the district is such as to favor a good system of sewerage, provided the house-drainage is perfect and plumbing is done with proper care, while the large amount of water daily passed into the sewers would appear, in theory at least, sufficient to thoroughly cleanse the channels and prevent, except perhaps in very dry seasons, the development and escape of any deleterious gases. During a very dry season, when the supply of water is limited, if organic matter adheres to the walls of the sewers, and the stream of water becomes considerably reduced, this effete matter, as the water recedes, becomes partially dried by exposure to the sewer atmosphere, decomposition is hastened, and sewer gases are more rapidly developed, escaping through imperfect house-drains, into the cellars and houses, or through the perforated man-hole covers into the streets.

The receiving-basins at the street corners, which form a portion of our system of sewerage, are, I believe, often a greater source of annoyance than the sewers themselves. These basins are trapped for the purpose of presenting an obstacle to the escape of sewer gases, and they receive not only all of the surface water from the streets and sidewalks, but also a good deal of street filth from the pavements and gutters, consisting in a considerable part of organic matter. The solid matter falls to the bottom, and is retained in the basin, while the water, as soon as it reaches the level of the outlet, passes through the trap into the sewer, there remaining in the trap a sufficient amount of water to close the communication with the sewer. The presence of large amounts of street filth in these basins, which gradually accumulate whenever there is a shower of rain, washing the street pavements and gutters, often give rise to offensive odors, which permeate the atmosphere to the great annoyance of citizens, and to the detriment of health. In tenement districts, where house refuse and other filth are deposited in the street gutters, and the streets are crowded with teams and traffic, this nuisance is at the maximum, and becomes especially noisome during very dry weather, when the amount of water in the basins and traps is reduced by evaporation, exposing the solid filth, and opening a direct communication between the street and the sewer. At such times we are exposed to noxious gases from two sources : from the sewer direct, in consequence of the traps being exhausted, and from the accumulation in the basin being reduced to that stage of dryness in which decomposition is most active. Again, we have all frequently noticed a pungent, sickening odor in the atmosphere immediately after a shower, or perhaps during a heavy storm of rain, which probably comes from the street basins, and not from the sewers, as many have supposed. The effect of heavy rains is to flush and cleanse the sewers, and to leave the traps filled with water, thus closing the principal avenues by which sewer gases might tend to escape into the street ; and also to increase the amount of filth in the basins, from washing of the streets and gutters, as well as to stir up the contents which, perhaps, have long lain quiet in the basins, and thus to liberate the volume of offensive gases confined in the mass. We are accustomed to congratulate ourselves upon the condition of the pavement and gutters after a heavy rain, regardless of the fact that the street filth, which but a short time before so offended our senses, is only removed from our sight, and deposited but a few feet below the surface of the street, with nothing to prevent the escape of its noxious exhalations into the open air ; or, in other words, what was before openly generating the elements of disease, is simply transformed into a secret foe, no less active, because its operations are hidden from view.

In the present rude method of cleaning out these receiving-basins, which consist in raising the contents in large buckets to be emptied into carts, we have another source of this sickening odor. Indeed, I think the most offensive odor of the kind I ever experienced was while witnessing the emptying of one of these basins in mid-day ; and I would here beg to suggest that by applying the suction method to this work, the public would be relieved from one great source of annoyance. Privy-vaults are emptied at any time of day by this method, without the slightest offense to any one, and why should it not be applied to the removal of these masses of decomposing filth, the odor from which is often as offensive and as deleterious to health as that from a neglected privy-vault.

The manufacture of illuminating gas is recognized by very many persons as a fruitful source of foul odors in cities, and is often charged with creating odors which emanate from other causes. It is true that in all destructive distillation certain gases are evolved, which, if allowed to escape into the external atmosphere, are more or less offensive to most persons, and this is especially the case with the impurities developed by the distillation of coal in the process of gas-making, which impurities are separated from the gas by some agent or agents, for which they have strong affinity ; and on the care and management of these purifying agents depends in a great measure the presence or absence in the atmosphere of impurities from gas works.

The subject of preventing the escape of foul odors from gas works received some years ago a very thorough and exhaustive inquiry, the results of which, with a detailed account of the investigation, are published in the annual report of the Metropolitan Board of Health for 1869, and may be regarded as a portion of the history of sanitary effort in this city. It must therefore suffice here to give briefly the practice of the two companies whose works are located within the boundaries of the district under consideration. It is well known by all who have kept pace with the inquiries hitherto instituted, that the foul odors from gas-houses are due to the impurities separated from the gas and escaping from the purifying agent when the latter is exposed to the atmosphere, and that they consist principally of sulphide of ammonium and sulphureted hydrogen, mingled with various other gases and odors, some of which are known, and others which have never been clearly defined. It is important then, that the material used for purifying be composed of such substances as will not only separate from the gas all of its impurities, but will either retain them, or by chemical action render them innocuous. The two principal agents used at present for this purpose are lime and the oxide of iron, each having its advocates—it being claimed for iron that the sulphureted hydrogen, in separating from the gas is decomposed, the hydrogen uniting with the oxygen of the iron, and the sulphur and iron combining to form a sulphuret of iron, which upon being again exposed to the atmosphere is in its turn decomposed, the sulphur being precipitated, and the iron re-absorbing oxygen, becomes again fit for use.

The advocates of the lime process claim that by a system of forced ventilation of the purifiers, and sending the foul air through deodorizers and condensers, they are enabled to successfully dispose of all offensive odors before the purifiers are opened, while the lime more effectually purifies the gas from carbonic acid, the presence of which in any considerable proportion diminishes its illuminating powers. It does not come within the province of this report to discuss further the comparative merits of these two purifying agents, and I shall therefore dismiss this portion of my subject by stating that of the two companies alluded to above, one purifies by the iron, and the other by the lime process, and for the manner in which they are used, the special measures adopted by these and other companies within the city, I beg leave to refer to the accompanying report of Inspector Goldschmidt, whose experience in the chemistry of gas-making has enabled him to intelligently study the subject.

The last of the three sources mentioned, and the one which I believe to have been the most fruitful in producing the offensive odors complained of, is the ammonia factory near the foot of East Twentieth street, where the sulphate of ammonia is obtained from ammonia water, a by-product of the gas works. Ammonia is one of the products of the distillation of coal, and is formed by the union of hydrogen with the nitrogen which is contained in coal, it being one of the elements of organic matter. Cyanogen is also produced, during the same process, by the union of nitrogen with carbon, and these, with other volatile products, are separated from the gas before the latter reaches the purifier. This is accomplished by passing the gas through what is technically called a "scrubber," consisting of a cylindrical vessel charged with coke, over which a supply of water trickles, and, coming in contact with the ascending gas, takes from it the cyanogen and ammonia in the forms of sulphide, cyanide, sulpho-cyanide, and carbonate of ammonia, thus constituting what is known as ammonia water of the gas works. The supply of ammonia water used at this factory is obtained from the works of the New York Gas Company, where it is collected in a well, and by means of a pump is drawn through an underground pipe to a receiver. From this receiver it is pumped into a still, when, by the application of heat the volatile matters are set free and passed over to a receiver containing sulphuric acid, which combines with the ammonia, setting free the remaining gases and impurities. If these be allowed to escape into the atmosphere, they become exceedingly offensive, and in some conditions of the atmosphere are disseminated to a great distance, escaping at whatever altitude they may, and though by their elevated temperature carried still higher, as they cool they gradually descend and are diffused over extensive areas. Their presence is more distinctly felt when the air is moist and deficient in oxygen, whereas in a clear, bracing atmosphere, they become more readily oxidized and destroyed. To prevent the escape of these various impurities it is necessary to make use of some special means for their destruction or for otherwise disposing of them ; and a common practice is to pass them through a "scrubber," where, by coming in contact with a shower of cold water, they are absorbed and discharged into a sewer. This was the condition of the New York Ammonia Works when my attention was called to the subject several months ago. During last winter complaints frequently came to this Bureau, from citizens residing in that portion of the city, of pungent and exceedingly offensive odors escaping at intervals from their house-drains into their cellars and houses.

The odor was described as being different from that of sewer gas, and many would not believe that it came from the sewer, but were of the opinion that it was due to some sanitary defect in adjoining premises. These complaints were referred to the Inspector of the district, Dr. C. P. Russel, and Assistant Inspector Nealis, who, after a good deal of patient investigation, succeeded in tracing the nuisances to the fact that the refuse of this ammonia factory was discharged from the "scrubber" into the public sewer, the offensive gases finding their way along the street sewers into house drains, even at a great distance from the starting point, and escaping from these house drains whenever any defect in construction or material was reached. Although this nuisance extended to all parts of the district connected with the same net-work of sewers, all of the houses were not alike affected ; as in one house the odor would be very strong and offensive, while in the adjoining one it was almost or entirely absent, thus detecting imperfect plumbing with a degree of certainty not to be questioned. Further investigation revealed the fact that in those houses, where the odor was most offensive, the house drains were constructed of bricks and mortar, which had become loosened by time, the odors escaping through the crevices thus formed. As soon as the cause of this nuisance was discovered, an order was issued, requiring the ammonia works to be disconnected with the public sewers, and other means of drainage to be provided ; which being done, this feature of the nuisance was at once abated. This provision, however, did not prevent the occasional escape of the same offensive odors into the external atmosphere, which was believed to be due to a limited supply of water in the "scrubber." As the water used in the "scrubber" was brought from the river by the action of a steam pump, this difficulty was met by exchanging the pump for one of larger capacity, in order to secure a more plentiful supply of water to condense the offensive gases, and by attaching an exhauster, by means of which any uncondensed gases might be drawn into the furnace and consumed. These efforts were successful, and for some time the citizens of New York enjoyed a comparative immunity from the disagreeable odors which had for so long a time annoyed them.

As warm weather approached it was apparent that the old enemy had returned, and that citizens were again annoyed, as was noticed by persons residing within the district, and as we were informed by letters from citizens and an occasional paragraph in some one of the public prints, which being brought to the attention of the Board, gave rise to the above resolution ; though in justice to this Bureau it should be stated that the investigation was already in progress.

My first effort in this direction was to examine into the condition of the ammonia works, and the probable share they had in contributing to the cause of these complaints. With this object in view, I called upon a number of citizens from whom we had received letters on the subject, for the purpose of inquiring the time of day or night in which they had experienced the annoyance, the condition of the atmosphere at such times, direction of winds, etc. With data thus acquired, I found, upon consulting the records of the ammonia works, that the hours in which they were in operation corresponded with those mentioned by citizens as the time in which they experienced the most annoyance, and furthermore, by consulting the weather records, it was found that the prevailing winds had been such as to indicate the ammonia works as the source from whence emanated the foul odors complained of. It was also ascertained, upon inspection of these works, that the improvements which had been made during the winter had been removed. The exhauster, by means of which the gases escaping the "scrubber" were conducted into the furnace to be consumed, had been removed, upon the plea that the furnace was injured by the process, and from some other motive the amount of water supplied to the "scrubber" had been considerably reduced by removal of the pump, and substituting a smaller one in its place, the capacity of which was not sufficient to cause the entire condensation of the waste gases, thus allowing their escape to the external air. These facts were at once verbally reported to the Board, whereupon, as Inspector Russel had previously filed a written complaint, in which he stated as his opinion, that these works occasioned the nuisances complained of, the Board issued its order that the works be discontinued, which order was immediately complied with, and the proprietors set about improving their machinery.

For several weeks daily inspections were made by Inspector Goldschmidt or myself, not only of the ammonia works, but the gas works were also frequently visited for the purpose of witnessing the opening of purifiers, etc.

The mouths of sewers draining the ammonia works and gas works were examined by Inspector Goldschmidt, and all found to discharge below the level of low water.

The ammonia company obtained permission to connect with a private sewer belonging to the New York Gas Company. They also repaired their machinery, provided for a larger supply of water, and, since the 17th of August, their works (by verbal permit) have been in operation during daytime, on trial, and thus far, although inspections and inquiries have been frequent, no complaints concerning the establishment have been received.

I am not ready, however, to recommend to the Board the granting of a permit for this company to resume its operations, until the present method of work has stood the test of more time and of all conditions of the atmosphere.

This report would be incomplete without a brief notice of various offensive odors, the sources of which are located outside of the limits of this district, and indeed outside of the city. For a long time past the east wind has occasionally brought to us offensive odors, which varied in character, but which could not be traced either to the ammonia or gas works. Since this investigation was commenced, Inspector Goldschmidt has more than once traced an odor of a peculiar nature from Madison avenue to the petroleum works at Hunter's Point and Greenpoint. He has also traced an offensive gas-house odor to the gas works at Williamsburgh, where the lime process of purifying is used without any special means of ventilating the purifiers. He has also, five or six times, traced offensive odors across the East river to the rendering and fertilizing works at Williamsburgh.

These sources of nuisance are beyond our jurisdiction, but it is proper that the public be informed that New York industries are not alone concerned in disturbing the happiness and comfort of New York citizens.

In conclusion I would say that the result of this investigation points directly to the works of the New York Ammonia Company, as the source of most of the offensive odors which pervaded the eastern part of the city during a portion of last winter and the early part of the summer ; and that by proper management these odors may be controlled, and the business conducted without offense.

It also appears that the two gas companies in the district are both endeavoring to conduct their business without giving offense, having adopted methods of purifying approved by the Health Department ; yet, it must be remembered that, however well matured the plans and well adapted the apparatus may be, there are occasional accidental causes of annoyance connected with all offensive trades.

The public sewers probably contribute somewhat to the impurities of the atmosphere, but more is doubtless due to the condition of the receiving-basins at the street corners. When liquids containing volatile gases of an offensive nature are discharged into the public sewers, these gases will find their way into the house-drains of the districts, and by their property of diffusion and tendency to escape through the most minute crevice, will thoroughly test the perfection of such house-drains, as well as of traps and waste-pipes connected therewith. In the operation of emptying receiving-basins, I would recommend that the suction method be adopted, as I believe it to be entirely practicable, as well as more expeditious and far less offensive than the rude method now in use.

Finally, this investigation has proved, beyond a doubt, that our citizens are sometimes annoyed with offensive odors which emanate from industries located outside of the City of New York, and over which no branch of our City Government has any control.

It is proper to remark here that since the above report was made, the business of the ammonia factory has been conducted generally without offense. At one time they undertook, as a matter of economy, to use "sludge acid," but, as this was betrayed by its offensive odor, it was immediately given up, and unadulterated sulphuric acid has been used ever since. There has been no abatement, however, in the smells that come to us from over the river—the petroleum and fertilizing works—from which during east winds our city is daily and nightly regaled; neither have we any means of dealing with a nuisance situated beyond the limits of our own city. In order to meet such cases, it appears to me that a State Board of Health, properly organized and clothed with due authority, is necessary; and in this respect I would remark that we are far behind many of our sister States. But as this is not the place to advocate such a measure, I shall allow this mere reference to the matter to suffice. The following is the report of Inspector Goldschmidt on the "gas nuisance" in the city and its suburbs:

SANITARY BUREAU, BOARD OF HEALTH,
September 25, 1874.

WALTER DE F. DAY, M. D., *Sanitary Superintendent:*

SIR—In accordance with a resolution of the Board of Health, ordering an inspection of the several gas-works of this city, I have the honor of submitting the following report:

In the exceedingly able treatise of Dr. C. F. Chandler, then Chemist to the Metropolitan Board of Health, and published in the report of that body for the year 1869, the cause and remedies of the "gas nuisance" are so thoroughly exposed and discussed that I feel it would be a work of supererogation to even attempt to cover the ground thus gone over.

I feel, also, that it will better correspond with the intent of the resolution to sketch the improvements adopted by the different companies whereby the stench of the purifiers, so often complained of, has in a great measure been abated.

THE GAS-WORKS OF NEW YORK.

New York City, by a combination of the different companies, has been divided into separate districts, supplied by separate works, so that until the establishment of the Mutual, in 1872, there was no competition between them. I append a list of the districts, with the names of the companies supplying each:

New York Gas-light Company, incorporated 1823. C. L. Everett, President; C. C. Mowlton, Superintendent. Office—157 Hester street; Works—East Twenty-first street. District—below Grand street. Price of gas, $2.75 per 1,000 feet.

Manhattan Gas-light Company, incorporated 1830. Charles Roome, President; C. V. Smith, Superintendent. Office—Irving Place, corner Fifteenth street; Works—foot of East Fourteenth street and foot of West Eighteenth street. Price of gas, $2.75 per 1,000 feet.

Metropolitan Gas-light Company, incorporated 1863. O. Zollicoffer, President ; I. Hertzog, Superintendent. Office—1,501 Broadway ; Works—foot of West Forty-second street ; extra houses—West Sixty-third street and East Sixty-fifth street. District—between Thirty-fourth street and Seventy-ninth street. Price of gas, $2.75 per 1,000 feet.

Harlem Gas-light Company, incorporated 1854. Burr Wakeman, President ; John Balmor, Superintendent. Offices—2,084 Third avenue and 59 Liberty street ; Works—foot of East One Hundred and Eleventh street. District—bounded by Seventy-ninth street and Harlem river. Price of gas, $3.00 per 1,000 feet.

Mutual Gas-light Company, incorporated 1866. C. K. Garrison, President ; S. P. Parham, Superintendent. Office—36 Union Square ; Works—foot of East Eleventh street. District—This Company have no limit, but enter chiefly into competition with the Manhattan and Metropolitan Companies.

Union Gas-light Company. Works—foot of East Ninety-fifth street, unfinished. District—This Company was started with the intention of competing with the Harlem and Metropolitan Companies.

New York Oxigen Gas Company. Works—West Fortieth street ; abandoned. District—This Company, whose intention it was to light the whole city by the Tessii du Motay process, have never made much progress.

Westchester County Gas-light Company, incorporated 1859. William R. Beal, President and Superintendent. Office—Alexander avenue and One Hundred and Forty-second street ; Works—One Hundred and Thirty-eighth street and East river. District—Morrisania and Lower West Farms. Price of gas, $3.50 per 1,000 feet.

Suburban Gas-light Company, incorporated 1870. Charles W. Bathgate, President. Office—Railroad avenue, corner Mott street ; Works—Bronx river. District—Upper West Farms. Price of gas, $4.00 per 1,000 feet.

Around all gas-works there will be constantly found an odor of gas, due to its escape by leakage. This may be looked upon as a necessary nuisance, without which the works could not exist ; yet, as it is to the interest of the companies to reduce this percentage of loss to a minimum, the cure may be well left to their care. It is only, however, when we obtain the stench from their purifiers, to obviate which costs comparatively a large sum, that it becomes necessary for the Board of Health to exercise its power.

The manufacture and condensation of gas, to be illuminating gas at present used, is mainly derived from the distillation of coal in clay retorts. This, by means of the exhaust, is drawn into the hydraulic main, and thence through the various parts of the purifier and measuring apparatus till it is finally deposited in the holder ready for distribution. In the hydraulic main, which acts as a general receiver for all the volatile products of the distillation, a part of the ammonia water and tar are condensed ; a larger portion of the remainder is carried into the tar and ammonia wells at the base of the condensers and scrubbers, various patterns of which are in use, special advantages being claimed, of course, for each.

Here enters the first prominent nuisance caused by the works, and one for which the companies are not wholly responsible. The tar and ammonia-water are sold to outside parties at a fixed price "per ton of coal carbonized," so that the works merely provide storage-room for these materials. Whenever these wells become filled the overflow passes into the river. This, of course, does not happen often, as the contractors find it to their interest to remove the stock as often as possible ; yet, when the demand for gas is great, and the market for the lye products low, it has frequently occurred that both ammonia water and tar have been suffered to pollute the neighboring streams.

The Purifiers.—In New York City there are two general methods of purification in use. By all of them the tar and ammonia compounds are readily extracted; indeed, in most gas-works they seldom even reach the purifiers, being removed by the apparatus mentioned above. In one or two of the smaller works, however, I have found tar in the purifiers through erroneous management. The chief substances, therefore, to be removed by the purifiers are carbonic acid, sulphureted hydrogen, sulphocyanogen, sulphide of carbon (S^2C), and various sulphureted hydrocarbons, the exact composition and nature of which are but little understood. These latter are converted, by burning, into sulphurous acid, which is destructive to household furniture and clothing, and even injurious to human life. Nor are its effects less deleterious because we may have partly become accustomed to the odor and flavor through the constant use of friction matches. As to the quantity of sulphur which may be safely left in gas, authorities differ. Doctor Letheby wishes to confine the amount to 10 or 12 grains. The English Parliament places the limit at 20 grains, while many of the most eminent gas engineers state that 30 or even 40 grains may be unobjectionable. I can, in this relation, do no better than quote from Prof. William Odling, in his lecture before the British Gas Managers, and incorporated by Dr. Chandler in his exhaustive report already alluded to:

"I am altogether at issue with the public when they maintain that the sulphur of gas produces, by its combustion, oil of vitriol, or that the amount of sulphur ordinarily contained in gas is of any consequence whatever; and a little consideration will, I think, satisfy you of the soundness of this position. We will assume that coal gas contains not 20 but 40 grains of sulphur in 100 feet—a quantity, at any rate, greatly exceeding the reality. Now, making another extravagant assumption, that the whole of the 40 grains of sulphur would be completely burned, and in reality they would be burned very incompletely, they would furnish by their combustion 80 grains of sulphurous acid gas. This quantity of the produced sulphurous acid would occupy, at ordinary temperatures, about one-fifteenth part of a cubic foot, and since 100 cubic feet of our coal gas gives one-fifteenth of a cubic foot of sulphurous acid, 1,500 cubic feet of coal gas would be required to furnish one cubic foot of the acid, even upon the extravagant assumptions we have purposely made. But the combustion of 1,500 feet of coal-gas would produce something besides sulphurous acid. It would produce at least 1,000 cubic feet of carbonic acid, and in addition to its dilution by other gases and vapors, we should have our sulphurous acid diluted by 1,000 times its volume of carbonic acid. Now, if we can get at the proportion of carbonic acid in a room highly illuminated with gas, and take the thousandth part of that proportion, we shall be able to form some notion of the amount of sulphurous acid present. You will remember that the amount of carbonic acid furnished by the breath of one individual is equal to that furnished by two three-feet gas-burners; and that the maximum amount of carbonic acid found in the atmosphere of a crowded theatre was 0.32 per cent. Now, if in addition to our previous unreasonable suppositions we further suppose that an atmosphere contains 0.2 per cent. of carbonic acid furnished by gas combustion, you will see that the whole matter becomes a *reductio ad absurdum;* that we might actually have one-half millionth part of sulphurous acid present in the air of a gas-lighted room."—*British Journal of Gas-lighting*, 1868, *p.* 82.

The carbonic acid dilutes the gas, reducing the illuminating power; thus the presence of one per cent. of carbonic acid will cause a reduction in candle-power of five per cent. This may be obviated by a slight increase in the use of enriching material, or by the non-extraction of the last particles of gas from the coal. "There is no sanitary objection to the presence of this substance, as either perfectly purified gas when burned, or one pair of human lungs, will produce in a given time far more carbonic acid than will ever be found in coal-gas."

I think the above brief summary will readily remove the objections raised against what is known as the "oxide of iron process." This, it will be remembered, is asserted to leave more sulphur and carbonic acid in the coal-gas than the so-called "dry-lime method." It is too late, however, to discuss the question, the Metropolitan Board of Health having rendered its decision in 1869, and since then no facts have been discovered to cause the present Board to revise the decision of its predecessor.

The Gas Works of New York may therefore be divided into two general classes, viz.:

1. Works employing the iron purification.

2. Works employing the lime purification.

I.—IRON METHOD OF PURIFICATION.

The iron ore process, more or less modified, is employed by the New York, Westchester, Harlem, and Mutual Companies.

This method is based on the original Laming & Hill patents. The former, issued April 17, 1847, consisted of a mixture of photo-sulphate of iron (copperas), slaked lime, with one-fourth its weight of sawdust, exposed until the protoxide was oxidized to sesquioxide, forming, therefore, a compound of hydrated sesquioxide of iron, sulphate of lime, and sawdust. Hill employed bog-iron ore (native hydrated sesquioxide of iron) with one-tenth its weight of charcoal; the charcoal and sawdust being used to render the mass porous. In the purifiers the peroxide of iron is converted by the sulphureted hydrogen into sesqui-sulphide of iron (Fe_2S_3). On exposure to the air, after use, the iron is reoxidized, the sulphur separated, and the mixture used over and over again. This is done until the mass contains 40 to 60 per cent. of sulphur. It may be then employed in the manufacture of Berlin blue, yellow prussiate of potash, and sulpho-cyanide of ammonium.

a. *The New York Gas-light Company.*

This Company, one of the first, if not the first, to employ a steam stoker, fill their purifiers with the "St. John and Cartwright mixture." This is composed of bog-iron ore mixed with iron turnings, saturated with ammoniacal liquor, and exposed to the air. To this mass 5 per cent. of coarsely pulverized charcoal is added. This mixture of natural and artificial sesquioxide of iron is sprinkled with ammonia water prior to being placed on the perforated board bottom of the purifier. This mixture has worked satisfactorily, having been renewed but twice since its introduction in 1868.

b. *The Westchester Gas-light Company*

use the St. John and Cartwright patent without modification. Their experience fully bears out that of the New York as to its success.

c. *The Harlem Gas-light Company.*

This Company modify the above process. The iron ore compound is placed in the purifier to the depth only of some two feet; above this is placed two layers of trays containing hydrate of lime. The intention of this is to absorb the carbonic acid of the coal-gas. There are, however, two objections to its use: First—The deterioration of the iron compound from the lime soaking into it between the slats of the trays ; secondly, the reduction in illuminating power undergone by the gas passing through both the iron and the lime. This latter objection, the Company claims, is obviated by the employment of a peculiar variety of scrubber, and of naphtha as an enriching material. The method of introducing this into the coal-gas varies somewhat from that employed at the Mutual works. The naphtha is volatilized by passing the coal-gas into it, and the two drawn into a closed retort, where they are heated together, and pass thence, thoroughly combined, through the condensers into the holders for distribution. As to the success of the purifying compound, I have no exact data, the Company having employed it but for a short time, and passing but a small proportion of the total amount of gas manufactured through it.

d. *The Mutual Gas-light Company.*

This Company, like the Harlem, manufacture a large proportion of their gas from naphtha. This is vaporized in closed stills, "converted into a permanent gas" by passage through heated retorts, condensed, and mixed with a proportion of atmospheric air, is passed into the pipes carrying the coal-gas, through which it is thoroughly diffused, and thence, together, carried into the holders. The coal-gas is purified by passage through the "Parham mixture," by which it is claimed both the carbonic acid and the sulphur are removed. This is composed of bog-iron ore, protosulphate of iron, hydrate of lime, and sawdust. These are exposed to the air, being sprinkled with water prior to being placed in the purifiers. There is formed, therefore, in the compound sesquioxide of iron (both natural and artificial), sulphate of lime, an excess of hydrate of lime and sawdust. The patentee claims to have passed 13,000 feet of Westmoreland coal gas through a bushel without change.

II.—THE DRY-LIME PROCESS.

This consists in the employment of moist hydrate of lime placed on a series of trays in the purifiers. After passing the gas through this, and opening the boxes, oxidation ensues, causing the foul stench so well known a few years since in New York as the gas smell. This has now been more or less successfully obviated by the introduction of the various means of ventilating the lime prior to opening the purifiers.

a. *The Manhattan Gas-light Company.*

This Company, the first to adopt these improvements, employ what is known as the Palmer system of ventilation. This, invented in 1842, was originally intended as a means of revivifying the lime, but, with appropriate modifications, has been applied to its present purpose. When the purifier is "foul," the gas is turned off, and the cover raised so that its base will just clear the water around the inner box, an exhaust fan, running over 800 revolutions, is set in action, and air rapidly drawn through the purifier. This air is passed through a washer of the usual construction, thence through a second purifier filled with lime, and finally into the chimney, in which it is forced through a water spray similar to the one employed in the scrubbers, prior to being passed into the open air. The second purifier, or, as it is called, the "deodorizer," is filled with refuse lime, moistened and oxidized by exposure to the air. After air has been drawn through the purifier for about an hour, a valve between it and the first washer is opened, and air drawn in through this opening, and finally connection with the purifier is shut off, by air passed through the deodorizer and washers alone. Since the adoption of this means of ventilation, the complaints against this Company have almost entirely ceased.

b. *The Suburban Gas-light Company.*

Here we find employed the old-fashioned dry-lime process, without modification or means of ventilation. As the works are small, and far from any inhabited neighborhood, I should suggest that, for the present, no action be taken in regard to them.

c. *The Metropolitan Gas-light Company.*

I regret to state that there are still numerous complaints against this Company. They have adopted, it is true, a means of ventilation, but the process does not seem to work satisfactorily. The works employ a modification of the McKenzie system. The latter consists in drawing air through the purifier by a steam exhauster. In the tops of the boxes are cut openings closed by caps, which are unsecured when the purifier is to be "drawn." The air, entering through them, is passed through a series of pipes until it reaches a narrow throat, where it is thoroughly mixed with a jet of steam, then passes through a condenser, and finally into the open air. Such is the principle of the ventilator, but, unfortunately, it is not carried into practice. The errors of the Metropolitan system are two in number:

First—The employment of too small an air exhauster. This the Company have promised to remedy, the present exhauster being only employed until the completion of their large one.

Second—Placing the condenser BEFORE instead of *after* the steam jet, a portion only of the foul gases being condensed. In justice to the patentees, I should state that they claim the process would have been successful had it been carried out in accordance with their original designs.

I should recommend that the Company be required to place either an additional condenser or a deodorizer similar to that of the Manhattan Company beyond the steam jet, between it and the chimney, in order to condense any gases at present passing into the air.

CHIEF ADDITIONAL CAUSES OF THE SO-CALLED "GAS NUISANCE."

During my inspection of the gas works, my attention was frequently attracted by several disagreeable nuisances, some, it is true, outside of New York, for which the gas companies have been frequently and unjustly blamed.

The first and most prominent of the offenders is the Williamsburgh Gas-light Company, whose works—employing the "dry lime purification," without means of deodorization—are situated nearly opposite East Seventeenth street. With a brisk east or southeast breeze, the smell of their purifier is distinctly perceptible as far up as Thirty-fourth street. Many of the complaints against the gas and ammonia works are distinctly traceable to this cause.

Indeed, when first investigating the ammonia nuisance, I was deceived into believing the latter running owing to the smell from the foul lime.

Next in order we find the odor from the "sludge acid" of the oil works at Hunter's Point and Greenpoint. When the petroleum, after distillation, is mixed with acid and air blown through the mass, a peculiar stench is set free; this, though distinguishable by one accustomed to the odor, is frequently mistaken by the ordinary citizen for the so-called "gas smell."

Last, but not least, we find the New York Ammonia Works, corner of Avenue B and Twentieth street. The Company manufacture sulphate and other ammoniacal salts from the waste liquor of the New York Gas Works.

This contains sulphide, cyanide, and sulpho-cyanide of ammonium, carbonate and other compounds of ammonia. Hitherto, in the process of manufacture, many deleterious gases have been suffered to escape, for which the gas companies have been almost universally blamed. This nuisance has, I trust, been cured; the gases being passed through a proper scrubber and finally into the furnace. For a complete account of the means adopted for discovering and remedying this evil, I would refer you to the extensive report of the Assistant Sanitary Superintendent, Dr. E. H. Janes, on this subject.

Street Cars.—In December, 1874, very bitter complaints were made against the want of ventilation in the cars of the Eighth avenue line. In very cold or stormy weather the doors and windows would be closed, and in their crowded condition the air became in a short time stifling and unfit for respiration. An order to provide suitable ventilation was therefore made upon this company, but it was resisted, and a hearing was demanded before the Board. Many witnesses appeared on the part of the company before George S. Hastings, who had been appointed by the Board to take evidence, and for the public several of the Inspectors, Dr. E. H. Janes, Assistant Sanitary Superintendent, H. Endemann, Ph. D., in charge of the Disinfecting Corps, and Mr. John Stephenson, car-maker. Several days having been given to the examination of this question, the line finally withdrew its opposition to the order, and soon afterwards the Ninth avenue car line, to whose bad ventilation there was the same objection, and which was owned by the same parties, put in a satisfactory system of ventilators in compliance with the law.

In October, 1875, the Board directed an inspection of street cars, with special reference to their use of cushions. It was found that most of the car companies had already complied with section 172 of the Sanitary Code. The Forty-second and Grand street Ferry Co. (the Green cars), the Tenth avenue R. R. Co. (Belt line), the city line of the Harlem R. R. Co. (Fourth avenue cars), the Third avenue cars, and the Bleecker street line, had not fully complied with the requirements of the Code, though they assured the Inspectors that they were making the desired changes as rapidly as possible.

Harlem Flats.—The filling in of these marshy lands has progressed steadily since the last Annual Report, and the condition of the district has vastly improved since then.

The Board wisely permitted street dirt and ashes, deprived as far as possible of garbage, to be deposited below the sewer level, provided they were covered with two feet of fresh earth. It has happened several times that objectionable material has been used so that the process has been offensive and has called for active interference on the part of the Board.

In some cases the scow loads have been disinfected under the supervision of officers of this bureau, and in others the made ground itself was disinfected. In June, 1875, in consequence of the settling of grounds previously filled and the exposure of this filling to heat and moisture, the Board directed a special disinfection of them, which, as will be seen by Dr. Endemann's report, was accomplished at an expense of $1,853.73.

It seems improbable that these low grounds are to be ever occupied by dwelling-houses, or that they are to be disturbed by cellar excavations.

I have forwarded to the Board drainage certificates covering all these lands, and have, in addition to this, caused orders to fill with clean earth to a higher level, to be served on the various owners of the separate lots.

Certificates of Drainage of Parts and Parcels of Lands, issued by the Sanitary Superintendent, from May 1, 1874, *to December* 31, 1875, *together with the Location of Sewers recommended to be constructed.*

DATE.	LOCATION.
May 19, 1874	Boulevard and Eighth avenue, Sixtieth and Sixty-first streets.
July 27, "	One Hundred and Sixth and Manhattan streets, Eighth and Tenth avenues.
Aug. 4, "	One Hundred and Thirty-fourth and One Hundred and Thirty-fifth streets, Fourth and Madison avenues.
" 11, "	Vacant Lots and Blind Drain, commencing at One Hundred and Forty-ninth street, about one hundred and fifty feet east of Robbins avenue, southerly and easterly across Southern Boulevard to Salt Marsh.
" 15, "	(South Belmont Swamp), John street, Locust avenue, Grove street and Prospect avenue.
" 15, "	(Monterey Swamp), Kingsbridge road and Locust avenue, Grove avenue and Lafayette place.
" 15, "	(Walker Swamp), Samuel street and Locust avenue, Chestnut street and Locust avenue.
" 15, "	By grounds of St. John's College, Kingsbridge road and Locust avenue, and Chamberlain avenue and Lorillard street.
" 15, "	Locust and Woodruff avenues, Walker street and Southern Boulevard.
Sept. 3, "	Ninety-fifth and One Hundred and First streets, Eighth and Ninth avenues.

Certificates of Drainage of Parts and Parcels of Lands, issued by the Sanitary Superintendent, from May 1, 1874, *to December* 31, 1875, *etc.*—(Continued).

DATE.			LOCATION.
Oct.	6,	1874	Broadway Junction, Ellwood street and Sherman avenue.
June	15,	1875	Tenth avenue, Kingsbridge road, One Hundred and Seventy-third to One Hundred and Eighty-third street.
"	29,	"	Third and Fourth avenues, One Hundred and Third and One Hundred and Fourth streets.
"	29,	"	Third avenue and Harlem river, One Hundred and Sixth and One Hundred and Eighth streets.
"	29,	"	Third and Fifth avenues, One Hundred and Fifth and One Hundred and Ninth streets.
"	29,	"	Fourth and Fifth avenues, Ninety-sixth and One Hundred and Fifth streets.
"	29,	"	Tenth and Eleventh avenues, One Hundred and Forty-eighth and One Hundred and Fifty-first streets.
"	29,	"	Tenth and Eleventh avenues, One Hundred and Fifty-sixth and One Hundred and Fifty-seventh streets.
July	2,	"	George street, Union avenue, White's lane, Delmonico and Concord avenues.
"	8,	"	Ninety-second and One Hundred and Fourth streets, First and Second avenues.
"	8,	"	Ninety-third and One Hundred and Second streets, Second and Third avenues.
Sept.	7,	"	(Monterey Swamp), Central avenue, between Locust avenue and Quarry road.
"	7,	"	Madison and Fordham avenues, Morris and Fitch streets.
"	21,	"	Kingsbridge road, Southern Boulevard, Arthur street, Fordham and Pelham avenues.
Oct.	5,	"	One Hundred and Thirty-first and One Hundred and Thirty-third streets, Tenth avenue and Broadway.
"	5,	"	One Hundred and Fiftieth and One Hundred and Fifty-first streets, St. Nicholas and Tenth avenues.
May	18,	"	Recommending construction of sewer, Tenth avenue, between Twenty-fifth and Twenty-sixth streets.
"	18,	"	Recommending construction of sewer, Avenue A, from Eighty-ninth to Ninety-second street.
June	15,	"	Recommending construction of sewer to drain lands, Tenth avenue, Boulevard, One Hundred and Seventh and One Hundred and Eighth streets.
"	15,	"	Drainage of lands between Seventh and Tenth avenues, One Hundred and Fortieth street and Harlem river (see chapter 566, Laws of 1871).
July	3,	"	Recommending construction of sewer, Lexington avenue, between Sixty-ninth and Seventieth streets.
Oct.	5,	"	Filling vacant lots, One Hundred and Sixtieth street, between Fourth and Madison avenues.
Nov.	3,	"	Recommending One Hundred and Fifty-sixth street, between Tenth and Eleventh avenues, be opened, and sewers constructed.

Certificates of Drainage of Parts and Parcels of Lands, issued by the Sanitary Superintendent, from May 1, 1874, *to December* 31, 1875, *etc.*—(Continued).

DATE.	LOCATION.
Dec. 9, 1875	Grade and level embankment of vacant lots, northeast corner Seventy-sixth street and Lexington avenue.
Jan. 26, "	Recommending construction of culvert, southwest corner Third avenue and Thirtieth street.
March 23, "	Recommending construction of two culverts, Morris street and Railroad avenue.
April 13, "	Recommending construction of sewer, Eighty-second street, from Avenue A to East river.
" 20, "	Recommending construction of culvert, northwest corner Fourth avenue and Fifty-fourth street.
May 11, "	Tidal lands, One Hundred and Sixth and One Hundred and Ninth streets, Fifth avenue and East river.

The New District.—Many of the certificates in the list embrace low and sunken lands in the district recently annexed, and I believe all the malarious regions in that location have been covered by certificates issued by the Board, in accordance with section 1, chapter 566, Laws of State of New York, passed April 18, 1871.

The construction of streets and avenues, for the most part unsewered, has interfered with natural drainage, and in many cases, surface-water has been ponded in vacant lots, or driven back into cellars, sometimes making whole streets uninhabitable. These difficulties, and that of finding the names of owners of unimproved property, have faced the inspectors at every step, and have retarded their progress in the sanitary improvement of the district; but much has already been accomplished. Mill Brook, which receives the contents of many privies and sewers, and with which several breweries and slaughter-houses are connected, is the standing offense in the district recently annexed. In the summers of 1874 and 1875 it was found necessary to cleanse it by raking out the decomposing animal and vegetable matter found on its bottom, and thoroughly disinfecting it. The odor arising from this material was so offensive as in several instances to sicken the laborers employed at the work. The channel has been deepened, and the flow of water has thus been rendered more rapid. These expedients, of course, are of but temporary value.

The sanitary wants of the district are awaiting a comprehensive system of sewerage and sub-soil drainage.

Street Cleaning.—The Board discontinued the requirement of the weekly reports on the condition of the streets, as regards cleanliness, made by this bureau during 1873, but I have had the honor, from time to time, to call its attention to streets which were particularly filthy, and which were badly paved. These reports have been referred, in the first instance, to the Street Cleaning Bureau of the Police Department, and in the second, to the Department of Public Works. As compared with 1873, the mere sweeping of the streets has been well performed, but the problem of keeping them clean is as far from solution as ever. I have heard of the arrest of no one for throwing slops and garbage into the streets, nor, except for a short time, has there been any attempt to separate the garbage from the ashes. I am quite convinced that the present system of street cleaning is radically wrong, and impracticable. New York has peculiar wants in this respect, which have never yet been intelligently considered and vigorously met. During the warm months the children of the poor are in the streets, which fairly stink with decomposing garbage from morning far into the evening. And there can be no doubt that the mortality of the city, especially among the children of the thickly populated regions, is much increased by the effluvia arising from filthy streets.

I was directed, during the summer of 1875, to instruct the employees of the Street Cleaning Bureau, who were stationed at the dumping-boards, in the proper disinfection of the garbage and street sweepings, and members of the Disinfecting Corps were assigned to this duty. This course was also pursued for a short time in the case of some sunken lots at One Hundred and Sixth street, west of Fourth avenue.

It is quite common to hear it asserted that such waste products of civilization as garbage, stable-manure, street-sweepings, ashes, night-soil, and dead animals accumulating in a city, can all be readily utilized. This is a pleasant theory for the economist, but its realization requires a combination of favoring circumstances. In this city the night-soil and dead animals are removed by the contractor to his own pecuniary profit. The proper disposal of stable manure has always been a most difficult problem to solve. Its market value depends much on the demand for it and the cost of its transportation, and it must be remembered that New York does not lie in the midst of an agricultural country whose lands needs enriching, but, on the contrary, it is surrounded by large cities, able to supply the farms lying back of them. The garbage of the city has never been collected by itself, and any attempt to use it must await its separation from ashes. It is claimed that street-dirt would make a capital fertilizer; but while, no doubt, it would make a good soil, the following report of Assistant Inspector Waller does not show it to be rich in plant-food:

WALTER DE F. DAY, M. D., *Sanitary Superintendent:*

SIR—I have the honor to report the following as the result of the examination of street dirt taken from the streets of New York City.

The samples when taken were very wet, but were all air-dried before being submitted to analysis.

Table of Analyses of Street Dirt taken in New York City.

NUMBER.	DATE.	LOCALITY.	PERCENTAGES OF—				TEST FOR SULPHURETED HYDROGEN.
			Water.	Organic and Volatile Matter.	Mineral Matter.	Nitrogen.	
1	Feb. 26, 1874	Sixth avenue, at Thirty-sixth street..	4.265	35.735	60.000	0.560	None.
2	" 26, "	Front Fifth Avenue Hotel..........	3.903	29.376	66.721	0.360	None.
3	" 26, "	Broadway, at Canal street...	3.853	37.572	58.575	.....	......
3a	" 26, "	" "	2.650	35.200	62.150	0.340	Slight.
4	" 27, "	Third avenue, at Fiftieth street.....	1.822	21.472	76.706	0.250	None.
5	" 27, "	Grand and Madison streets.........	2.620	32.622	64.758	0.340	Slight.
6	" 27, "	Rivington and Willett streets.......	2.325	28.359	69.316	0.280	None.
7	" 28, "	Seventh avenue, at Fifty-third street	0.697	5.841	93.462	0.084	None.
8	Mar. 2, "	Avenue A, at Twenty-third street...	0.691	16.361	82.948	0.168	None.
9	" 2, "	Ninth avenue, at Twenty-third street	7.491	35.674	56.835	0.448	Slight.
10	" 2, "	Broadway, at Fourteenth street.....	3.999	33.311	62.689	0.392	Slight.
11	" 2, "	Avenue C, at Sixteenth street.......	2.000	29.650	68.350	0.840	Slight.
12	" 3, "	Eighth avenue, at Fourteenth street.	3.101	28.720	68.179	0.364	None.
	Average..................................		3.032	28.454	68.514	0.369	......

The determinations of water, organic and volatile matter and mineral matter on Nos. 3

and 11 were made on the samples after sifting. With the others those determinations were made before sifting.

The figures for organic and volatile matter are probably a little too low, as metallic iron was observed to be present, which absorbed oxygen during ignition. The ash was in all cases quite red from the presence of iron. The tests for sulphureted hydrogen were made after air-drying and sifting, so that the indications were not so decided as they probably would have been had the test been made on the mud when still moist and fresh from the street.

No. 7 appeared to have been taken from a spot where some sand or mortar had been spilled. No. 8 contained coal-dust. No. 11 had a very offensive odor, which evidently came from decomposing animal matter.

According to Boussingault, dry horse manure contains in one hundred parts 2.2 parts of nitrogen. From certain data the proportion of nitrogen in wheat or oat-straw is calculated as about 0.63 per cent. and in hay as about 1 per cent. Assuming that the nitrogen found in the samples of street dirt came from one or another of these nitrogenous substances, we would have, by calculation:

100 PARTS OF—	CORRESPONDS TO.	PARTS OF HORSE MANURE.	PARTS OF STRAW.	PARTS OF HAY.
No. 1..........	Corresponds to....................	25.45	89.	56.
No. 2..........	"	16.36	55.	36.
No. 3..........	"	15.45	54.	34.
No. 4..........	"	11.36	39.	25.
No. 5..........	"	15.45	54.	34.
No. 6..........	"	12.72	44.	28.
No. 7..........	"	3.82	13.	8.4
No. 8..........	"	7.64	27.	16.8
No. 9..........	"	20.36	71.	44.8
No. 10..........	"	17.82	62.	39.2
No. 11..........	"	38.18	133.	84.
No. 12..........	"	16.54	58.	36.4
		201.15	699.	442.6
Average..................................		15.47	....	.....

Respectfully submitted,

ELWYN WALLER,
Assistant Sanitary Inspector.

In concluding this report I beg to call the attention of the Board to the annual reports of the Sanitary and Assistant Sanitary Inspectors to be found in the Appendix, reminding it that the reports are deficient in the cases of Drs. Hall and De Marmon, from their protracted illness, and in that of Dr. Rodenstein, from his untimely death, early in 1876. The report of Dr. Endemann, Ph. D., in charge of the Disinfecting Corps, will be found in the Appendix, together with a report upon the condition of the Croton water during the year, by Assistant Inspector Elwyn Waller, Ph.D.; one upon "Hydrophobia," by Dr. Charles P. Russel; one upon "Smoky Chimneys," by Dr. Roger S. Tracy, and one upon the "Sanitary Influences of Cigar-making in Tenement-houses," by Drs. Tracy and Emerson.

All of which is respectfully submitted,

WALTER DE F. DAY, M. D.,
Sanitary Superintendent.

NEW YORK, January 31, 1875.

W. DE F. DAY, M. D.,
Sanitary Superintendent:

SIR—I have the honor to present the following report of sanitary labor performed by me during the last twenty months, under your supervision.

The district in which I have labored extends from Canal street to the Battery, on the west side of Broadway, and from Liberty street to the Battery, on the east side of Broadway. It comprises the First, Third, and Fifth Wards, and is largely occupied by stores and warehouses. Portions of this district, are, however, occupied by a dense population, dwelling in tenement-houses of the kind most difficult to keep in good sanitary condition. A large portion of the inhabitants of this district belong, moreover, to the floating class which is found along the waterside of all maritime cities. They are found crowded in sailor boarding houses and in emigrant intelligence offices, and form an element of danger to the public health, from their disregard of the laws of sobriety and cleanliness, and from the facility with which they can be made the medium for the importation and spread of all the contagious diseases. I have endeavored to stimulate the owners of tenement-house property in my district to keep their houses in good condition, and have made myself familiar with the resorts of the floating population above referred to, with the view of keeping them in as good sanitary condition as the circumstances allow, and of discovering and counteracting incipient manifestations of diseases of an infectious or contagious character.

Tenement Houses.—The authority of the Department has been conspicuously shown during the past year in the supervision and partial reform of a number of the old buildings, which, from their size and crowded condition, as well as from their all presenting a uniform air of squalor and wretchedness, have popularly received the name of the "Barracks." The tearing down of these buildings, and the entire reconstruction of the premises, would be a sanitary work of great value to this part of the city; but the expense attending operations of such a radical nature has prevented me from recommending orders of such serious import, and has led to a thorough trial of measures of a milder nature. The result of the method pursued has been variable. It is gratifying to state that in numerous instances the responsible parties have recognized the authority of the Department, and the condition of many tenants has been correspondingly improved.

Many of the more substantial buildings in these lower wards of the city, now used as stores and warehouses, could, without much expense, be altered into tenement houses, bringing in a much larger return than at present. I have conversed with the occupants and owners of some of this property on this subject, and am of the opinion that a revival of commercial prosperity will be followed by the remodelling of some of these buildings. The reconstruction of a building for use as a tenement house should be undertaken only after the most careful and deliberate study, and the submission of the plan to experts in sanitary architecture. I am aware of one instance, at least, in which an experiment of this kind partially failed from neglect of these precautions. In this case, the owner of a fine piece of storehouse property remodelled the building for tenements, and made a serious mistake by not providing for the adequate admission of daylight into the new apartments.

The exclusion of daylight from the halls, as well as from some of the rooms, is a serious defect, not only in the lower order of tenement houses, but also in tenement houses of the best class, in all parts of the city. This defect is susceptible of remedy in many cases, and in all new tenement houses it could be readily prevented by the enforcement of one of the sections of the existing Sanitary Code. The discomfort and danger of living in tenement houses would be very much diminished if the halls and staircases were properly lighted by windows opening to the external air. I am sure I express the sentiment of every medical practitioner in the city when I protest against the further construction of buildings in which the stranger, entering from the glare of the street, has to grope his way from floor to floor in darkness, in fear of collision with other passengers, and in dread of contact with unseen filth.

Streets.—I regret to report that the streets in my district have not been properly cleaned during the past nine months. The evils which arise from a failure to remove the dirt from the streets are most keenly appreciated by those who daily inspect the condition of tenement and other houses, and who are held more or less strictly accountable for the sanitary condition of these dwellings. A portion of the dirt which lies in the streets and gutters is unavoidably tracked into dwellings, and is left in considerable quantities on the stairs and in the halls and rooms of crowded tenement houses, making the effort to keep such premises clean an endless task. The dirt which thus accumulates in tenement houses is not brought in from the yard. As a rule, the yards of tenement houses are reasonably clean. A comparison between the street on the one hand, and the yard on the other, is almost invariably in favor of the latter, because agents and housekeepers are individually held responsible by this Department for the condition of the latter, while there is apparently no individual responsible for the condition of the former. I would further call attention to the fact that the dirt of the streets is carried into dwellings not only by being tracked in, but also by being carried through the air in the form of "dust"—a euphemism for desiccated and pulverized filth. In wet weather the filth from the streets is tracked into, and in dry weather it is blown into the house, making it almost impossible to keep an ordinary tenement house in a tolerably clean condition. The unclean and unwholesome condition of many of the tenement houses in my district is largely due to failure to secure the cleaning of the streets. If the streets were cleaned the unpleasant and injurious results produced by the distribution of mud and dust would be entirely removed in the lower districts of the city, where the ground is completely occupied by buildings and covered up with pavements.

Piers and Bulkheads.—Intimately connected with the sanitary necessities and deficiencies of the waterside population is the sanitary condition of the piers and bulkheads, and the streets adjoining. It is no easy task to keep the piers of this district clean, constructed as nearly all of them are of wood further or less advanced in decay, and subject to the attrition inseparable from their use. As a rule, however, I have to report that the piers and bulkheads are kept reasonably clean, the result, apparently, of a system by which individuals are held responsible for their condition. A comparison in point of cleanliness between the piers and bulkheads on the one hand, and the streets on the other, is very much in favor of the former.

The following inspections and complaints have been made by me in the past twenty months, three months of which I was not on duty:

INSPECTIONS.

Tenement houses	2,541
Cellars and basements	724
Stores and warehouses	925
Factories and workshops	60
Vacant lots	41
Stables	98
Private dwellings	148
Streets, sidewalks, etc.	94
Piers and bulkheads	19
Markets	46
Dumps	4
Street cars	11
Total	4,711

COMPLAINTS AND REPORTS.

Tenement houses	455
Private dwellings	19
Stores and warehouses	146
Factories and workshops	5
Stables	11
Markets	4
Fat-rendering establishments	8
Chicken butcheries	5
New buildings	2
Other buildings	3
Cellars	147
Yards, alleys, and areas	21
Streets, sidewalks, etc	43
Chimneys	3
Vacant lot	1
Manure dumps	2
Other nuisances	32
Total	907

Cases of diarrhœal disease	19
Cases of small-pox	75
Cases of diphtheria	46
Vaccinations	68
Re-vaccinations	131

Very respectfully, etc.,

A. B. JUDSON, M. D.,
Sanitary Inspector.

NEW YORK, January 31, 1875.

W. DE F. DAY, M. D.,
Sanitary Superintendent:

SIR—In submitting my report of work done from May 1, 1874, to January 31, 1875, so few changes have occurred in the character of the District that I am unwilling to go into details lest my report should be a mere repetition of former ones.

The number of tenement houses is slowly increasing, and their general condition has been good. Containing such a large proportion of the inhabitants of the city, their care is of the first importance to the Inspector. The greater number of complaints forwarded against them bear witness to the watchful supervision exercised over them rather than to their unsanitary condition. Of course where families are so huddled together, as we find in certain houses; where houses are so built that often there is not more than twelve feet intervening between front and rear houses, the most unceasing vigilance can accomplish but little good. While such conditions are allowed, the death returns cannot be materially bettered. Where the most good may be done, is not only by exercising a most careful espionage over the buildings already occupied, but by preventing the construction of new buildings unless all requirements are carried out.

Dwelling houses are a much more frequent source of complaint than formerly. I consider this as chiefly due to the increase of sanitary knowledge and necessities. Attention is called to these houses frequently by the owners themselves. Formerly offensive smells or defective plumbing would have been tolerated, but now a careful examination is demanded by the Health Board. The result, in the majority of investigations made, justifies the action.

The condition of the streets has been about the same as represented in my report for the preceding year. I wish that I were able to speak more enthusiastically on this subject, but I am satisfied that any laudation by me would be regarded as satire by those compelled to frequent the streets. The removal of ashes and garbage does not seem to me to be a question of such elephantine proportions as it is made.

I think the removal at a specified time, due notice being given to tenants, is of the first importance.

The hour for removal is entirely in the control of the Street Cleaning Bureau, and notice of the approach of the cart might be given by the ringing of a bell, as provided in the Sanitary Code. The fact that house-refuse finds its way into the street, littering it up, is not the fault of the tenants, save in certain thickly populated tenement house regions where the filth is deposited directly upon the street. The tenant feels that he has done his share when he has placed the receptacle upon the sidewalk to wait for the collector.

Let us now see what often happens while it is waiting there. First, along comes the chiffonier and overhauls the box or barrel, leaving sufficient of its contents upon the street to attest the thoroughness of his examination; then perchance may come the frolicsome young man or playful boy, who for a little fun will give the receptacle a push and over it goes depositing its contents upon the street; or lastly, if the receptacle be a good barrel it is probably appropriated by boys who may realize a few cents from the sale of it. Such, I claim, is not an exaggerated statement of the objections to the present method of collection of garbage and ashes. Until house-refuse is removed regularly and thoroughly it will be out of the question to have clean streets.

The number of cases of small-pox show an increase over the preceding year; still its spread was readily controlled by prompt removal to Hospital, or rigid isolation, thorough vaccination and disinfection.

Appended is a tabular statement of inspections, etc.:

Tenement houses	2,825	Miscellaneous	241
Dwellings	308		
Stables	310	Total	3,684

COMPLAINTS FORWARDED.

Tenement houses	285	Miscellaneous	116
Dwellings	70		
Stables	16	Total	487

CONTAGIOUS DISEASES.

Small-pox	73	Morbilli (reported small-pox)	1
Diphtheria	7		
Varicella (reported small-pox)	3	Total	84

VACCINATIONS.

Primary	26
Re-vaccination	59
Total	85

Number of families visited for vaccination	134
" " " Cholera Infantum, investigations	135

Respectfully,

S. F. MORRIS, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

WALTER DE F. DAY, M. D., *Sanitary Superintendent, etc.* :

SIR—I have the honor to present the following report upon that portion of this city which has been under my care during the past twenty months:

Between May 1, 1874, and February 1, 1875, my duties as Inspector were confined to the Eighteenth Ward, bounded by Twenty-sixth street on the north, the East river on the east, Fourteenth street on the south, and Sixth avenue on the west. During the period mentioned the sanitary condition of the ward continued materially the same as during the preceding year, with the exception of a very marked increase in the number of small-pox cases coming under my observation.

On February 1, 1875, a general interchange of districts having been effected among the Sanitary Inspectors, I entered upon duty in the territory bounded by Fourteenth street on the north, the East river on the east, Houston street on the south, and Broadway on the west. This district comprises about two-thirds of the Eleventh Ward, one-fourth of the Fifteenth Ward, and four-fifths of the Seventeenth Ward. It has a population (computing from the census of 1870) of 126,000 living upon an area of 445 acres, or at the rate of 180,000 inhabitants to the square mile. The most densely populated portion, however, of this district, and that requiring especial supervision, lies between the Bowery and the East river. Its population, according to the last national census, amounted to about 120,000, living upon an area of 396 acres, and crowded consequently to the extent of nearly 200,000 to the square mile. The large majority of this dense population consists of Germans; and here are to be found many of the most enormous tenement houses in the city.

Notwithstanding these facts, the death-rate in the Eleventh and Seventeenth Wards during the year 1873* did not exceed 25 in each 1,000 inhabitants (see table on page 220 of Annual Report for 1873), while in the entire city it amounted to 25.8, and in other less crowded wards to the following: First Ward, 32.7; Second Ward, 29.7; Fifth Ward, 30;

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* The year 1873 is selected as affording a mean annual mortality in the six years 1870 to 1875, inclusive.

Sixth Ward, 31.5; Seventh Ward, 26.6; Eighth Ward, 29.8; Twelfth Ward, 27.7; Fourteenth Ward, 30.3; Nineteenth Ward, 27.9; Twentieth Ward, 27.3; and Twenty-second Ward, 27.2. So comparatively favorable a condition of public health in this district may be accounted for by the fact that the majority of its tenement houses are well ventilated, and that their inmates pay considerable attention to domiciliary and personal cleanliness. The Germans, moreover, in many respects present a great contrast to the other nationalities which constitute our tenement-house population. As a rule, they are industrious and thrifty; their food is nutritious; they are not addicted to strong drink; they spend much of their leisure time in the open air; they clothe themselves and their children comfortably; their bedding is usually clean, and daily aired at the windows. All of these circumstances combined render them much less susceptible to the insalubrious influences of the atmosphere which surrounds them, vitiated as it is by emanations from multitudes of human beings huddled together, from insufficiently drained houses, from thousands of privy vaults, from defective public sewers, from ill paved and uncleanly streets, and from street gutters often filled with stagnant water. It is scarcely necessary to treat under separate heads of these various unhealthful conditions. They exist to a greater or less extent in all the tenement-house districts of the city, and require the constant watchfulness of the few officers to whom is intrusted the sanitary supervision of so extensive and populous a territory.

The following is a summary of the work performed by me during the years 1874 and 1875 (twenty months):

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	5,340	Other nuisances	448
Other dwellings	484		
Stables	267	Total	6,539

COMPLAINTS MADE UPON ABOVE INSPECTIONS.

Tenement houses	1,050	Other nuisances	215
Other dwellings	81		
Stables	57	Total complaints	1,403

CASES OF CONTAGIOUS DISEASE VISITED.

Small-pox	215	Measles	1
Diphtheria	25		
Varicella	9	Total	250

Respectfully submitted,

C. P. RUSSEL, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

DR. W. DE F. DAY,
Sanitary Superintendent:

SIR—I have the honor to submit the following report of the work performed by me during the past twenty months, in my official connection with the Health Department:

During the first nine months to which this report refers my district comprised the lower portion of the Nineteenth Ward, extending from Fortieth to Fifty-ninth street, and from Sixth avenue to the East river. For the past eleven months I have had charge of the lower portion of the Twenty-second Ward, extending from Fortieth to Fifty-ninth street, and from Sixth avenue to the North river. With respect to the general condition of tenement houses and dwellings, I have not noticed much difference in the two sections. The tenement houses are perhaps as a rule a little larger and better kept on the west than on the east side. An immense amount of sanitary improvement has been steadily going on in both sections during the past year. The influence of the Board of Health is everywhere felt as a power for good. Citizens generally, whether high or low, appreciate more than ever before that they can look with confidence for redress of nuisances of every kind to a power whose authority is acknowledged, as is abundantly testified by the numerous "citizens' complaints," which are daily referred to the inspector, some of them arrayed in the scholarly chirography of the educated and wealthy, while many them come clad in the halting sentences of the tenement-house denizens. These complaints from citizens always receive as prompt attention as possible from the inspector; their investigation taking precedence over every other duty except the management of contagious diseases. It is a noticeable fact that owners of property, whether tenement or otherwise, as a rule comply with the orders of the Board with much greater readiness and promptitude than in former years, finding it a much simpler, and in the end a more economical matter, to attend at once to the requirements of decency and health, rather than to combat the Board in the courts, and eventually be compelled to do the very work which they were required to do in the beginning, in addition to having a formidable bill of costs and judgments to pay.

Local Superintendence in Tenement Houses.—In several former annual reports I have urged upon the Board the necessity for local superintendence in tenement houses. I see no reason for abating my ardor in this direction. The beneficial results in tenement houses where responsible superintendents or housekeepers have been employed are too numerous and evident to admit of question. On the other hand, the constant filth and unsanitary conditions which prevail in houses where there is no supervision or restraint imposed upon the ignorant and careless tenants, speak more plainly and forcibly on this point than anything the inspectors could say or suggest. I respectfully advise, as I have done before, the propriety of the passage of a law compelling the owners of tenement houses to provide housekeepers in each house, whose duty and responsibility it shall be to attend to the cleanliness and good-keeping of the interiors, exteriors, and surroundings of such houses.

Contagious Diseases.—I will not attempt to suggest anything new with reference to the management of contagious diseases. So much has already been written and suggested by my colleagues and myself in this direction as to render further expatiation a work of useless iteration. I would however simply state that I have found no reason for changing my views with respect to the invariable removal of small-pox patients to hospital from tenement houses, where there is any reasonable prospect of the patients reaching the hospital alive. In my opinion isolation in a tenement-house has proved beyond a doubt to be impracticable under any and every circumstance. I have attempted such isolation on several occasions, during the past year, where circumstances of a peculiar character have seemed to justify it, and have had occasion to regret my leniency in every instance.

Shanties.—There are numerous shanties in the northern portions of my district, which are occupied by a shiftless, careless, filthy class of people, who ignore the commonest requirements of decency and cleanliness, living in intimate association with and proximity to dogs, horses, pigs, geese, and other bipeds and quadrupeds, whose habits they assimilate and whose filth commingles with their own. It is next to impossible to do anything with these people, or to improve their sanitary surroundings. Complaints innumerable have been made by me, and orders by the score have been issued by the Board against these shanties, but with very little permanent effect. Their occupants are an irresponsible set, against whom a legal proceeding would be worthless, and after a superficial cleansing of the augean stables, they soon relapse into and wallow in their pristine filth. The only radical remedy for these nuisances is to drive the shanty population out altogether from their strongholds, an event which is certainly only a question of time.

Stables.—Very many of the stables in my district are in a constantly filthy condition with manure and foul stabling straw, which is exposed frequently for weeks together in the yards and alley-ways adjoining the stable buildings. In all such cases it is my custom to recommend that these stables shall be provided with suitable manure boxes or vaults with tight-fitting covers, the receptacles to be connected with the street sewers and with the stables by proper drains. There are now only three or four stables in tenement house buildings in my district, and orders have already been issued by the Board for their unconditional abolishment.

Water-closets and Privy Vaults.—The advantages of the ordinary privy vault over the water-closet for tenement house use has been dwelt upon at such length in former reports as to require merely a passing notice here. The chief reason for the preference given to the former is based upon the well-known carelessness of the tenement house inmates in the use of the water-closet, the complicated apparatus of pans, valves, vertical soil pipes, and flushing apparatus being exceedingly liable to become disarranged under the severe tests which it receives at the hands of the tenants. I see no reason for changing my views with reference to the superiority of the "school sink" over either the privy vault or the water-closet. The "school sink" is so perfectly simple and inoffensive as to recommend itself as by far the best and most manageable of all.

Ventilation of Privies and Waste Pipes.—The ventilation of privy vaults in the proximity of tenement houses or dwellings is an exceedingly important sanitary matter, and has received a large share of attention from the Inspector. I have adopted it as a rule, with very few exceptions, to require every privy vault situated within a distance of fifteen feet or less from a dwelling or tenement house to be ventilated by a metallic shaft with a diameter of from six to eight inches, extending from a depth of six inches or more below the top of the privy vault to a height of at least two feet above the roof of the building of the greatest altitude on the premises, the shaft to be capped by a rotating flue for the purpose of securing constant ventilation. The beneficial working of these ventilating shafts is established beyond a doubt by long experience. Vaults which were formerly in a constantly offensive condition, are now entirely devoid of odor. Tenement house owners, I find, are generally quite willing to construct such flues where their advantages are satisfactorily explained to them; and I have more than once been thanked by owners for suggesting the improvement, after they had observed its beneficial effects.

Vacant Lots.—Very many vacant and sunken lots have been fenced in, cleaned and disinfected, and connected with the street sewer during the past twenty months, through the agency of the Health Department.

Ventilation of Waste-pipes.—I frequently recommended the ventilation of waste-pipes, both in tenement houses and in private dwellings, where offensive sewer gases escape from wash-basins, bath-tubs, or slop-sinks either into a hall or a room. The ventilation of these pipes is attained by simply extending them uninterruptedly through the roof, and leaving the free extremity either open or perforated with numerous holes. I think that the practical working of these ventilated waste-pipes is found to be quite as striking as that of the ventilating shafts in the case of privy vaults. Where I find wash-sinks, slop-sinks, or bath-tubs unprovided with proper traps I insist on such traps being made in the waste-pipe wherever required.

Sewerage.—A large number of houses have been connected with the sewer during the past year by order of the Board. In several instances I have found two or more houses connected by a common pipe with the sewer; in one case thirteen houses being thus connected by a common drain. In all such cases I have required a separate and independent sewer connection for each of the several premises. Occasionally I have found the main street sewer in certain blocks obstructed, a condition which inevitably causes obstruction of the individual sewer connections in the houses throughout the block, and ultimate flooding of cellars and overflowing of privy vaults and water-closets with waste-water and fæcal matter. I have in such instances referred the cases to the Department of Public Works, and they have invariably received prompt and thorough attention. No new sewers have been built in the district, to my knowledge, during the past year.

Garbage.—I am at a loss as to what to suggest with reference to the proper disposition of the garbage and general refuse matter of tenement houses. Every conceivable variety of garbage vessels has been tried throughout the district, and a vast amount of care has been exercised by housekeepers and others in the transferring of garbage from the houses to the carts, and yet, thus far, the result of the experiments has been at best but very unsatisfactory. I have nothing new to recommend in this direction, but, whatever variety of garbage vessel may be sanctioned by the Board, I beg leave to reiterate my unqualified condemnation of the large, open, stationary garbage boxes on the street sidewalks in front of the houses. These boxes are and cannot be otherwise than a constant stench in the nostrils of the community. They concentrate the filth and intensify the noxious odors, and are a far greater nuisance than the absence of all vessels would be. I have entered innumerable complaints against these boxes, and very many of them have been removed, and portable metallic vessels have been substituted therefor.

Slaughter-houses.—There are in all, on the west side, thirty slaughter-houses, large and small. Several of these have been lately unoccupied, however, or only used at irregular intervals. These houses are all connected with the sewer. Many of them are insignificant wooden buildings, where small numbers of sheep and calves are slaughtered, and where the offensiveness arising from such slaughtering is practically nothing. The larger houses, with but few exceptions, are for the slaughtering of cattle. During slaughtering the yards and floors are frequently in a very filthy and offensive condition with manure and the contents of the stomachs and intestines of the cattle. But each day, after active operations have ceased, the entire premises, within and without, are thoroughly flushed with water and carefully cleansed, the offal and refuse matter being carted to the rendering dock daily. The walls and wood-work are regularly whitewashed and cleaned at least once a week, and oftener if requisite. The large hog slaughter-houses at the foot of West Fortieth street are models in every respect. I have never at any time or under any circumstances been able to detect the slightest unsanitary condition in any of these hog-houses.

Ventilation, *roof leakage*, *drainage*, *etc.*, *etc.*—It is an exceedingly rare thing for me to find a tenement house or dwelling where the ventilation of halls and rooms is not strictly or practically according to law. This has mainly been brought about by the efforts of my predecessors in the sanitary charge of the district, as I have found very few occasions for recommending improvements in these respects. Leaky roofs, broken soil-pipes, waste-pipes, and leaders; defective street pavements and gutter stones; filthy yards, cellars, courts, alley-ways, and areas; full and offensive privy vaults and water-closets; overflowing cess-pools and slop-sinks, and the host of nuisances dependent upon the carelessness, willfulness, and negligence of landlords and tenants, are daily investigated and reported upon by the Inspector, and orders for their abatement are issued by the Board. This perpetual combat with ignorance and filth, in their manifold forms, constitutes the daily humdrum work of the Inspector. His labor is not always a showy task, nor is it one that gains for him a brilliant reputation among either landlords or tenants. But it is a work of vast importance, and one which is yearly crowned with more abundant and enduring success.

I append a tabulated statement of the character of the labor performed by me in the district during the past twenty months:

NUMBER OF VISITS TO INFECTIOUS AND CONTAGIOUS DISEASES.

Small-pox	514	Typhoid Fever	18
Scarlatina	2	Cholera Sporadica	1
Varicella	3	Measles	1
Diphtheria	85		
		Total	624

Number of vaccinations performed	183

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	6,142	Breweries	4
Slaughter houses	2,007	Public buildings	5
Dwellings	1,530	Railroad tunnels	3
Streets, sidewalks, and gutters	839	Churches	8
Stables	438	Markets	3
Vacant lots	409	Head-picking houses	2
Manure dumps	91	Gas-house	1
Gut-cleaning houses	82	Sewers	10
Fat-boiling houses	56	Boarding houses	5
Shanties	63	Cemeteries	4
Yards, courts, and areas	52	Laundries	2
Stores and warehouses	84	Offal boat	1
Factories and workshops	20	Distillery	1
Unfinished buildings	11		
Hotels	6	Total	11,879

COMPLAINTS AND REPORTS FORWARDED.

Tenement houses	2,532	Stables	371
Streets, sidewalks, and gutters	849	Vacant lots	372
Dwellings	762	Slaughter houses	140

COMPLAINTS AND REPORTS FORWARDED—(*Continued*).

Shanties	40	Tunnels	3
Gut-cleaning houses	27	Gas-house	1
Yards, courts, and areas	38	Head-picking houses	2
Factories and workshops	17	Churches	2
Stores and warehouses	59	Sewers	10
Unfinished buildings	9	Public buildings	2
Manure dumps	5	Laundries	2
Hotels	6	Cemeteries	3
Cellars and basements	3	Distillery	1
Markets	3	Offal-boat	1
Breweries	3		
Boarding houses	5	Total	5,268

All of which is respectfully submitted,

W. H. B. POST, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

W. DE F. DAY, M.D., *Sanitary Superintendent:*

SIR—I have the honor to submit to you the required report of the work performed as Sanitary Inspector of the Health Department, from April 30, 1874, to December 31, 1875, and the condition of the district assigned me, with special reference to the changes and improvements which have been made during that period.

The topography of the district has been described in former reports, and requires no repetition; it is especially adapted for the development and diffusion of malarial diseases in all their varied and complicated forms.

The natural and primitive character of the lands north of Ninety-third street, and east of Fifth avenue, extending to One Hundred and Eighth street, were low and sunken, subject to tidal overflow with no adequate means of drainage, and were consequently the cause for the unhealthfulness of the whole section.

The opinion which has so long prevailed, and which has been generally admitted, that tidal lands are not in themselves detrimental to health, is applicable only to such lands as are not subject to the deposit of foreign material or debris upon their surface. The lands in question have been for years the receptacle for all the sewage, drainage and filth from the buildings, including breweries, slaughter-houses, stables, privies, and shanties located west of Third avenue and east of Tenth avenue, extending from Ninetieth to One Hundred and Twenty-third street. And besides, these lands have been subject at all times to the action and influence of salt tide water.

It is an established fact, that salt or sea water does not neutralize or deodorize decomposing matter, but, on the contrary, the chemical action of salt or sea water contributes to the deleterious action of sewage, and to the development of sulphureted hydrogen. This has been demonstrated in the city of Baltimore by Health Commissioner Dr. James A. Stewart, where basins are constructed to receive the sewage of the city during the flow of the tide, with waste weirs to open and discharge the contents of the basins at ebb-tide, when it would flow out to the sea, thus making an effort to avert or lessen the deleterious action of salt water upon the sewage of the city, and the diffusion of noxious and offensive gases.

The Harlem Flats were found, upon investigation, to have deposited upon their surface the accumulated residuum of years, from the action of salt water upon the sewage and drainage and other decomposing matter deposited upon this vast extent of territory, and offensive emanations were exhaled from those low lands, contaminating the atmosphere for miles distant.

The Health Department, in 1873, recognized the necessity of relieving this section from this odious imputation, and, if possible, to change its whole aspect and sanitary condition, and accordingly devised plans for the removing of the causes.

It was evident that no drainage could be accomplished without first filling and grading the lands above tidal overflow. After the drainage and surface water west of Fifth avenue, and as far north as One Hundred and Twenty-third street, had been converged into the sewer at One Hundred and Tenth street and Fifth avenue, it was ordered that the lands be filled and graded to a level above tide water.

In my last annual report, allusion was made to an existing contract for the filling and drainage of this section, under the direction of the Department of Public Works, in accordance with the certificate of the Health Department. This work, then under contract, has been completed. The Harlem Flats, east of Third avenue, between Ninety-third and One Hundredth streets, have been filled, graded, and stone drains constructed and connected with the sewer in Ninety-sixth street.

As the law admitted of an assessment to a limited amount (based upon the valuation of the land), the work could only be performed within the prescribed limit of expenditure, and consequently the filling and grading could only reach a certain level. The sum of the assessment proved to be inadequate to carry the filling and drainage above tidal overflow in the extreme high tides which occasionally occur, although the lands are filled to the level of the sewers, but the sewers are at high tide surcharged with water, and the water escaping into the stone drains sometimes overflows the lands which have been filled. If the ground could have received two feet more of earth upon its surface, the work would have proved a complete success, and would have been of great sanitary benefit, beyond cavil or reproach. Orders were issued and served upon the owners of the lands between One Hundred and Sixth and One Hundred and Eighth streets, requiring that they should fill and grade above high water. About one-half of these orders have been complied with. The year closing will, I trust, find them all complied with; then the plan adopted for the "crowding out" of the tide water will be accomplished, and "McGowan's" creek and "Harlem Flats" will cease to be a source of disease and cause for complaint.

One Hundred and Seventh street, which lies in the centre of these sunken and overflowed lands, is to be filled and graded. Lexington avenue, which crosses these lands, is also to be filled, thus obliterating with the completion of gradings, all the sunken and soil-saturated lands west of Third avenue.

One Hundred and Sixth street, from Third to Fifth avenue, has been graded and a sewer completed, with lateral branches extending on both sides of Fourth avenue, from One Hundred and Third to One Hundred and Eighth streets. A sewer has also been constructed in One Hundred and Eighth street, west of Third avenue—these improvements will add much to the sanitary condition of this section. It is to be hoped that when buildings are erected upon the area included within this once tidal land, due precaution may be taken, and that no cellars be carried below the sewers—as all the outlet sewers north of Ninety-third street are subject to tidal obstruction, and of course when so obstructed tide water will interfere with house drainage, causing the overflowing of the cellars.

Much has been said and written upon the subject of drainage and sewerage, and yet buildings are constantly being erected without reference to the depth of the street sewer. This is particularly the case in many localities in Harlem—the bottoms of very many cellars are below the sewer level, rendering them liable to be affected by high tides, causing dampness even where they are cemented and connected with the sewer.

The sewers in Fourth avenue, extending from Sixty-sixth to Eighty-sixth streets, which were disturbed and whose outlets were cut off by the necessary excavations for the Fourth avenue improvements, have all been rebuilt, and are in good condition, with proper outlets, and of such depth as to preclude any repetition of evils resulting from the discharge of their contents into the tunnel. Sewers are generally constructed to convey surface water and house drainage, without reference to the drainage of any soil saturated lands through which they may pass, but if due regard was paid to the depth of the cellars in such localities, these sewers would perform all the required service and relieve many evils which now exist. The practice of having only one sewer connection for four or five houses should be prohibited. This is and has been to some extent the custom even among first-class builders. Many blocks of the best houses are so connected with the street sewer, interrupting and preventing a free escape of the contents of soil and waste pipes, and causing obstructions which at times have proved pernicious to the health and comfort of the occupants. Every house should have a separate and independent sewer connection, with the soil and waste pipes extending above the roof, so as to allow the escape of sewer gas into the external air.

The subject of the *ventilation of soil and waste pipes* has not received the attention which its importance demands. The public, however, are becoming convinced of the necessity, and many changes are being made under the orders from the Health Department. And in every case where the pipes have been so extended there has been an almost entire freedom from noxious and deleterious gases. It is a melancholy fact to record, that in many cases of diphtheria which we are required to investigate, we find that the disease is associated with the escape of sewer gases into the sleeping rooms from imperfect waste pipes or exhausted traps. It is also so with regard to the development of malarial and typhoid fevers. These diseases are more manifest and more frequent in their occurrence soon after families return from their summer sojourn in the country, and re-occupy their houses which have been closed, with exhausted traps—house, bedding, walls, all saturated and contaminated with poisonous exhalations from the sewer—giving life and vitality to the previous absorption in the system of malaria from rural exposure, and thus developing diseases latent if not perceptible at the time of return to the city.

Tenement Houses are the subject of frequent inspections, and are generally kept in a good sanitary condition. Many have been improved by the extension of soil and waste pipes above the roof. Others, whose cellars were inundated by high tide, have been relieved by the filling and cementing of the cellars.

Fat Melting.—There is but one establishment in the district, at One Hundred and Sixth street and East river ; and there is but one slaughter-house, located at One Hundred and Sixth street and First avenue ; both are kept as good and as cleanly as can be expected, considering the nature of the business. There are eight pork packing establishments where lard is melted during the winter months.

The general condition of the *stables* is very good. Many of them are occupied as cow stables and owned by the shanty population, who sell milk to families whose children are fed from the bottle. The shanty occupation gives rise to many nuisances and inconveniences which the Inspector recognizes, but in the rapid growth of the city these are being adjusted.

Annexed is a tabulated statement of the inspections and re-inspections made by me from April 30, 1874, to December 31, 1875:

Tenement houses	1,428	Privies and water-closets	586
Private dwellings	732	Streets and roadways	116
Shanties	261	Public sewers and drains	49
Cellars and basements	110	Factories and workshops	14
Public buildings, hospitals and asylums	55	Slaughter-houses	62
Yards and stables	307	Fat rendering	155
Dumping grounds	152	Manure and night-soil boats	16
Vacant and sunken lots	497		
		Total	4,541

CONTAGIOUS DISEASES.

Small-pox	407

VACCINATIONS PERFORMED.

Primary	78	Secondary	196

COMPLAINTS AND REPORTS.

Tenement houses	121	Streets and roadways	38
Private dwellings	104	Vacant and sunken lots	104
Cellars and basements	7	Violations of Code	9
Privies and water-closets	89	Reports and re-inspections	1,097
Stables and yards	19		
		Total	1,588

Respectfully submitted,

AUG. VIELE, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

W. DE F. DAY, M. D., *Sanitary Superintendent:*

SIR—I have the honor to submit the following report upon the sanitary condition of that portion of the city comprised between the North and East rivers and a line extending from the East river westerly along Fulton street to Broadway; thence along Broadway, Park row, Chatham street, and the Bowery, to Houston street; thence along Houston street to Broadway; thence along Broadway to Canal street, and thence along Canal street to the North river, including the Fourteenth, Sixth, Fifth, Third, First, and a portion of the Second Wards.

This district has in the main been in a healthful condition, but there are certain points with regard to existing nuisances and possible improvements, to which I wish to call attention.

Tenement Houses.—There are two great evils connected with tenement houses in this district which must exercise a very great influence upon the death record of the city. I refer to overcrowding and filth. The former is too evidently the result of poverty and the peculiar conformation of Manhattan Island to be easily and effectually remedied. The latter, I think, might be very easily and promptly done away with to a great extent.

The overcrowding in the portion of the city of which I have charge undoubtedly results chiefly from poverty. There are vacant rooms sprinkled in great numbers all over the district, quite sufficient, I should judge, to dilute the population to a more healthful degree of density ; but from lack of means a family which, to obtain a sufficient supply of fresh air should occupy four rooms, is crowded into two at half the price. They cannot afford more roomy apartments, and so are as limited in their supply of oxygen as in the quality and quantity of their food, and pass their lives with their physical wants only half supplied with what are real necessities, to say nothing of the almost total destruction of decent morals which results from a constant and unavoidable commingling of the sexes. If the sexual immorality of the tenement houses of New York could be laid bare by some Asmodeus, the community would be aghast at the revelation.

The matter of filth, I believe, can be more easily managed. The majority of the dwellers in my tenement houses are not as dirty as they were a few years ago, and they all seem now to realize that dirt is a thing to be ashamed of. Almost all of such houses have their housekeeper, whose business it is to see that everything about the house is in good order, and who often comes out to meet the Inspector when she sees him enter the house or yard. Many of these women are admirable managers and industrious superintendents ; and, were it not for one thing, would keep their houses in unexceptionable condition so far as regards cleanliness. The one thing which often thwarts their efforts is the irregular and imperfect removal of ashes and garbage. If these matters are not regularly removed, or if the removal is accomplished in a careless and slovenly manner, if the garbage receptacles and street gutters are not properly cleaned, the tenantry become infected with the carelessness of the officials. If the garbage box is full and running over they will throw their refuse into the gutter or into the privy vault, where it chokes up the sewer-pipe, or into the hydrant sink, to stop up the drain, or into any convenient corner, where it lies until spied by the housekeeper or perhaps by a Sanitary Officer. Even at the best, garbage boxes are a terrible nuisance in a large city like New York, and where they are permanently located upon the sidewalk and the contents are allowed to accumulate, as they often are, until they run over into the gutter, the sight and smell are often such as to make one wonder whether we are really in a civilized land and in the last quarter of the nineteenth century.

Now the remedy for this state of things to me is plain. Let the ash and garbage carts make their rounds with clock-like regularity, and do their duty thoroughly. Every man and woman in New York City should be able to say, for example, "It is seven o'clock. It is the ash-man's time." The men should have a bell to tinkle, and should strike it at the same time, in the same block, every evening in the year. Then every tenant would keep her kitchen refuse until the proper time came, or there might be some particular place under the housekeeper's charge, where the daily accumulation should take place. Then we should have no more stinking messes and boxes lining both sides of the street for miles, a constant annoyance to ourselves and a constant source of ridicule to strangers. Of course there would be objections to the above plan.

There always are to everything new. I believe they could all be easily overcome. I believe the plan to be perfectly practicable, and although I have only given the merest outline, that the minor details could be easily arranged.

Privy Vaults.—The most offensive privies in the district are those situated below the level of the street or yard. Many tenement houses cover the entire lot upon which they are built, and the situation of the privy vault seems to have been an afterthought. Some vaults are in the cellar, some in the front or rear area, and some under the sidewalk. All of these underground vaults are dark, and therefore naturally more filthy than those above ground. All of them, so far as I have observed, are paved with stone, to insure greater cleanliness, or greater facility for washing and scrubbing. The stone floors are always damp, and generally wet, the water remaining from one washing not evaporating before they are scrubbed again. This constant dampness powerfully assists decomposition, and such closets are always, in my experience, peculiarly offensive. The whole lot being occupied by the building, such closets cannot be moved, unless they are placed upon the roof of the house. And I am not sure but that is the best place for all privies and water-closets. I have seen some such—there is one at No. 78 Watts street—and they appeared to be very clean and not offensive. If the soil-pipe connecting such closets with the sewer were well constructed, with tight joints, this perhaps would be the best method of solving the difficult problem which the matter of privy accommodations in tenement houses presents. In fact the time may come when there will be no cellars in any dwelling house, and the storage rooms, kitchen, water-closets, and bath-rooms will be on the upper story of the building.

Ventilating Shafts.—A large number of these have been connected with privy vaults in my district during the past year, and many soil-pipes in buildings occupied as stores and offices have been ventilated by extension above the roof. If work of this character be properly done, it is a very effective means of preventing the outflow of gases into the building, but it is too often done in a manner which shows not only carelessness, but absolute ignorance of the object to be attained. Two instances in my own experience will suffice to illustrate this. Complaint was made by tenants of a crowded dwelling that offensive odors came from the privy vault, although it was ventilated by an eight-inch shaft. On visiting the locality, I found that the cap, placed upon the top of the shaft to keep out rain and snow, was fastened so closely to the upper opening of the shaft that not more than half an inch of space intervened. Of course there was no upward current in the shaft, excepting under very exceptional circumstances. The cap was raised six inches, and the trouble ceased.

The other instance is the following: Complaint was made that foul gases escaped from a sink in a building occupied by offices, although all sinks were well trapped, and the soil-pipe ventilated by being extended above the roof. On investigation, I found that the soil-pipe had indeed been carried above the roof, but although a pipe of only one and a half inch calibre, there were six right angles in it before it finally opened to the external air! Imagine a chimney flue built in this way! Comment on this case is unnecessary.

Mechanics do not seem to understand that an air current is retarded by friction as much as a stream of water is. In the case just mentioned, with a small pipe and so many abrupt angles, the stagnation, for the greater portion of the time, was complete. In the larger shafts, which are put up to ventilate privy vaults, the friction is less, and yet the angles in most of them are too frequent and too abrupt. The straighter their course, the more effective will be their action.

Cellars.—Many cellars in the district have been vacated as places of human habitation.

They need to be constantly watched to prevent re-occupation. Some tenants seem to prefer a troglodyte life to any other, for they will pay a rent for a damp and dark cellar, which would procure them comfortable lodgings above ground, and when ordered to leave their miserable quarters, they crawl out of them with a reluctance and a display of what phrenologists call inhabitativeness, that belongs to hardly any other class of tenants. The cellars in the lower portions of Greenwich and Washington streets, and the streets which cross them, are particularly unfit for occupation, as they are all very damp, and many of them flooded with water at every high tide.

Factories.—The box-factories, of which there are several in the district, are an unmitigated nuisance, by reason of the clouds of smoke which they discharge. Many of them are in the midst of crowded tenement districts, and cause great distress and frequent complaints from citizens. I do not believe the matter can be remedied by smoke-consumers, or in any other way than by a change of fuel or a removal beyond the city limits, as I have already stated in a special report upon the subject.

Contagious Diseases.—These have visited my district very lightly during the time covered by this report, as will be seen from the annexed statement. With very few exceptions, all cases of variola have been removed to the hospital. My early experience in the service of the Board of Health taught me that if a case of variola be isolated in a tenement house, the disease is sure to spread, and I always try to induce the friends of the patient to allow his removal.

The following is a tabulated statement of the inspections and re-inspections made by me from April 30, 1874, to December 30, 1875.

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	4,571	Market	1
Yards and areas	1,158	Stables	205
Streets and sidewalks	494	Other buildings	20
Sink	1	Catch basins	2
Private dwellings	106	Privies and water-closets	663
Other dwellings	7	River pier	1
Cellars and basements	406	Sunken and vacant lots	99
Public buildings	11	Street gutters	2
Stores and warehouses	275	Telegraph pole	1
Factories and workshops	118		
Fat-rendering establishment	1	Total	8,142

The following complaints were forwarded:

COMPLAINTS.

Tenement houses	326	Factories and workshops	9
Yards and areas	165	Other buildings	4
Private dwellings	17	Cellars and basements	68
Other dwellings	1	Streets and sidewalks	127
Stables	24	Vacant lots	5
Public buildings	2	Street gutters	16
Stores and warehouses	25	Hydrants	3

COMPLAINTS—(*Continued*).

Leaders, etc	1	River pier	1
Privies and water-closets	219	Dirt carts	5
Cesspool	1	Telegraph pole	1
Live fowl	3	Special reports	3
Catch basins	4		
Sewer	1	Total	1,031

The following cases of contagious disease were visited :

CONTAGIOUS DISEASES.

Variola	59	Typhus fever	1
Varioloid	53	Typhoid fever	14
Varicella	6	Diphtheria	13
Rubeola	4		
		Total	150

Number of families visited on duty in vaccinating	501
Primary vaccinations	73
Secondary vaccinations	106
Total	179

All of which is respectfully submitted.

ROGER S. TRACY, M. D.,
Sanitary Inspector.

January 1, 1876.

NEW YORK, January 1, 1876.

DR. W. DE F. DAY, *Sanitary Superintendent:*

SIR—I have the honor to report as follows concerning the condition for the past twenty months of the Sixteenth Sanitary District of the City of New York, bounded by East Twenty-sixth street, East Fortieth street, Sixth avenue, and the East river. The natural divisions of the district into dwellings and tenement-house portions, with Lexington avenue as the dividing line, renders almost all the work required in the "Sanitary Bureau" to be given in the tenement-house portion, or that which lies east of the dividing line.

Street Paving.—The condition of the street paving of the district in most of the streets is good, with the exception of some of the streets in the tenement-house portion, which have been originally paved with the old cobble-stone pavement, and these are not, and in my opinion cannot be, kept in such repair as to be conducive to the health of the occupants of the adjoining houses, despite all efforts on the part of the Street Cleaning Bureau. First avenue, from East Twenty-sixth to East Thirty-sixth street ; Second avenue, from East Twenty-sixth to East Fortieth street ; East Thirty-third and East Thirty-sixth street, from Lexington avenue to the East river, are constantly in a filthy condition, and the depressions between the stones filled with offensive decaying matter, which it is impossible to remove by any effort on the part of that department.

Waste and Drains.—The district under my charge covers a large area, being inhabited by about 130,000 persons, and therefore a large portion of my time is consumed in attending to complaints made by citizens. The varied character of these, and the locations complained of being usually so far apart allow little time for systematic and uniform inspection of the district; but in those inspections that have been made by me block by block I have endeavored, in the portions of the district occupied by the poorer classes, to continue the work, as mentioned in my last report, of causing the owners to place traps under the sinks and basins, and to ventilate the waste and soil pipes by extending them through the roof.

Tenement Houses.—The question of the construction of a tenement house so that its occupants may enjoy the benefits of the many improvements of modern science without too great an increase of rent, is one of great importance. In answer to any questions on the subject of improving the standard of this class of property, almost all of the architects and landlords reply: O, yes! we can put in all these things, but they cost so much that we cannot rent them for the price poor persons can afford to pay. This may be true to a certain extent, but there are a few rules from which no deviation should be made. Light, air, and cleanliness are three indispensable agents in the preservation of life and health, and should always be kept in view by architects in designing all kinds of tenement or apartment houses.

No house should be constructed more than four rooms deep without having a fair sized ventilating shaft not less than four feet square, extending from the cellar to three feet above the roof, and the sides of that portion above the roof inclosed only by open slat work so arranged as to prevent the rain from entering, but admitting of the free circulation of air. At the bottom of the shaft it should be connected by an air box with the external air at the front or rear of house, in the same manner as the air is supplied to an ordinary hot-air furnace. Into this air shaft all of the inner rooms should have a window opening not less than four feet square. Over all doors in this class of houses, whether opening into halls or from room to room, swinging fan lights should be placed, extending from the top of the door to within a few inches of the ceiling.

The lighting and ventilation of halls by means of an open window at the end is a subject which has so often been dilated upon by writers on sanitary matters that it seems like tautology to again mention it; the more so as it is a direct requirement of the Tenement House Law of the State, but, I am sorry to say, it is a dead letter in the eyes of those in charge of the construction of buildings.

I well understand that, in order to have the window at the end of the hall, it is necessary to have one small bed room less on the floor; but notwithstanding that fact I deem it so important from a sanitary standpoint that it should be insisted on in every case.

The first floor of this class of houses should be two feet above the level of the curb, and windows opening into the cellar should be placed in the front and rear to allow a direct circulation of air.

Sunken areas front and rear of houses should not be allowed, they serve as catch holes for dirt, and are of little use.

Factories and Workshops.—The question of the consumption of their own smoke by the furnaces used for the purpose of driving engines by steam is one of great importance. In the construction of new furnaces mechanical adaptations for the more perfect combustion of carbonaceous materials can be applied, but in adapting these applications to old furnaces I have experienced great difficulty. In many cases, in the district under my charge, the results have not been very satisfactory; in nearly all factories where saw dust and refuse of wood are burned it does not lie as much with the owner as with the stoker, if steam jets, etc., are placed so as to cause a better consumption of smoke. The stoker, as it causes him a little more trouble, shuts off the steam from the jets, or closes the air box and renders all of our efforts null and void.

The following is a tabular statement of the inspections and re-inspections performed by me from May 1, 1874, to December 30, 1875, being a period of twenty months:

Tenement houses	4,080	Factories and workshops	117
Private dwellings	1,064	Stores and warehouses	10
Privy vaults and water-closets	1,481	Vacant lots	52
Drains and wastes	693	Streets and gutters	18
Stables	727	Sewers	2
Yards, courts, and areas	205	Other nuisances	63
Cellars	283		
Sidewalks	275	Total	9,070

Visits to cases of contagious diseases.. 239

Complaints and reports on orders forwarded to the Board, were as follows:

Tenement houses	1,042	Streets and gutters	49
Private dwellings	186	Factories and workshops	13
Drains and wastes	525	Stores and warehouses	16
Privy vaults and water-closets	886	Vacant lots	19
Cellars	262	Sewers	1
Yards, courts, and areas	166	Other nuisances	40
Sidewalks	482		
Stables	198	Total	3,885

All of which is respectfully submitted.

CHAS. F. ROBERTS, M.D.,
Sanitary Inspector.

January 1, 1876.

Walter De F. Day, *Sanitary Superintendent:*

Sir—I have the honor to submit for your consideration the following report of the work performed by me during the last twenty months. During the last year I have had, in addition to my old district, that portion of the city located between West Fourteenth and West Twenty-sixth streets, and between Sixth avenue and the Hudson river, thus giving an extent for sanitary supervision reaching from West Fourteenth to West Fortieth street, between Sixth avenue and the Hudson river, containing, in round numbers, at least 3,300 tenement-houses, to say nothing of the great number of dwellings not to be classed with tenement-houses proper. As the growth of business extends upwards its demands for room displace the occupant-owners of the more wealthy class, and their dwellings are occupied by two, three, or more families, the number of families depending as a rule upon the number of floors—one family to a floor. The occupants are usually a medium class of tradesmen, mechanics, clerks, etc., who live near their business and are all "well-to-do."

Tenement Houses.—Since my last report many new and better constructed tenement houses have been erected. Dwellings upon the French flat system are largely on the increase.

Cellars.—Since my last report many cellars have been vacated by order of the Board. The power of example being strongly felt in this district, the landlords, with but few exceptions, are slow to let, and tenants slow to lease the cellars for habitation, and the announcement of "basement to let for business purposes only" is fast taking the place of the somewhat equivocal "to let."

Factories and Workshops.—Attention was called in my last report to the want of proper railings to stairways, attics, etc. These have on all occasions been complained of. Another especially noticeable defect is the improper protection against rapidly revolving belts, shafts, and wheels. Accounts of deaths therefrom are quite common.

Fat-rendering.—The number of "professional" fat-renderers in my district (those rendering lard and tallow) is three. Two are located on the north side of West Thirty-eighth street, between Eleventh avenue and Hudson river, and the third has been lately opened at Nos. 13 and 14 Abattoir place. They profess to render only fresh fat, and in a few instances succeed. The old stinks which this business engendered are now held in abeyance by improved apparatus and an acquired respect for sanitary orders. But two or three complaints have been made against offensive odors therefrom during the past year, and these were due to mishaps from frost. There is quite a large number (10) of hog slaughterers and cutters, who render the fat while fresh, that is, removed from the hogs "killed" or "cut" on the premises. This class of industry does not create the widely diffusible stinks which are liable to occur in the former. The lard is cooked in steam-tight tanks, provided with suitable apparatus for the destruction of gases.

I would especially invite the attention of yourself and the Sanitary Committee to the admirable gas-destroyer used by Monroe, Crane & Co. on the north side of West Thirty-ninth street.

There is a third class who "cook" once or twice a week in the fall and winter. They, too, are required to use great care, employing covered kettles connected by a flue with the chimney. In my dealings with this important industry, I have always held that the cooking of fat or the odor of hot fat is offensive and deleterious to health, and that the gases must be destroyed in some way. There is a common fallacy that if the gases from the tank be conducted into the furnace fire they will be destroyed. The gases must first be conducted through some medium which will abstract the water from them. If this be not done the fire will be deadened by the moist vapor and dampened gases discharged into it, thus allowing the uncondensed and non-condensable ones to escape up the chimney. Economy in fuel should suggest a different procedure. A quite common reply to the question of "How do you dispose of your gases?" is "They go beneath the furnace, between the fire and damper into the chimney." Such a condition of things I always find inadequate for the destruction of gases.

I take pleasure in stating that the great majority of the proprietors manifest an equal interest with your Inspector in employing suitable measures to render their business as little offensive as possible, only one having been subjected to fine for violating the Sanitary Code.

Markets and Market-places.—The lesser markets occur in this district as elsewhere, and are only a nuisance when a small amount of fat is cooked, "bolognas" made, stale articles rendered, or fowls kept in cellar, yard, or on sidewalk. In many instances they have been taught caution at the usual rate per lesson. The Manhattan Market, at the foot of West Thirty-fourth street, has been divided into an abattoir, having all the appurtenances for killing and rendering the fat and offal, the latter to be under the immediate supervision of Professor H. Draper.

Other Buildings, and their uses. Houses of Prostitution.—There is no apparent diminution in their number or the amount of evil done, and only an apparent effort at mitigation. I believe now, as stated in my last report, that some means based on sanitary principles should be used to mitigate the evil results of human sexual commerce.

Liquor Stores—Wholesale and Retail.—In my last report I used the term, "*retail* liquor stores," more because they are more numerous, and engaged directly in destroying the body politic, than from a failure to recognize the influence of the *former*. Without discussing whether good liquor be poisonous, or the liquor sold be good, or whether "benzine" should be rank poison, it is perfectly evident to any one dealing with the ebulliating element of our city, that too much liquor is drank. The evidence given before the various committees, by persons in power, asserts distinctly, that poisonous liquors are in great amount, and are consumed by just the class of people who fill poor-houses, jails, and whose families suffer most from contagious and infectious diseases. If people *will drink*, they should have a pure article of whiskey, the same as of milk or water, of which they often drink less. I think that a sanitary supervision of liquors manufactured and retailed is an absolute necessity.

Privies and Water-closets.—In relation to these. I have no desire to change the statement made in my last report. During the past year a large number of orders calling for the ventilation of privy vaults has been enforced, and with great satisfaction to the occupants of houses. This is an unquestionably good order.

Sunken and Vacant Lots.—The "filling in" process and the "abandoning of these lots," mentioned in my last report, came to a sudden stop. They were half filled in, and the remaining portion, subject to the proper restrictions. were used for the storing and dumping of manure.

Streets and Street-paving.—There has been no change for the better. The streets of the tenement districts should be oftener and better swept. The cobble pavement should be supplanted by Belgian. The wooden pavement in Seventh avenue is becoming a great nuisance to the traveling public, if not a breeder of miasma. Through it, in very many places, stagnant water is seen, and a splashing sound on driving over or stepping upon it is heard. During a hot summer we certainly have here the elements necessary to engender miasma.

Waste-pipes.—The necessity for ventilation of waste and soil pipes connected with dwelling houses has become a fixed fact, and a sceptical person has only to place his nose over the extremity ventilated to be assured of its utility. The waste-pipes to all sinks, both kitchen and hallway, should be provided with stench-traps. Inasmuch as the stench-traps to the hallway sinks of tenement houses are liable to freeze and burst, making the necessary repairs burdensome to the owner, I would recommend that all sinks in hallways be dispensed with, and kitchen sinks used instead. The sinks of kitchens are always kept cleaner than those of the hallways. There is an important fact that should occupy the attention of the Board, that is, the condition of the plumbing in private dwellings. It is a very common thing to find imperfect waste and soil pipes, no traps, etc., in these dwellings. This I have especially noticed in those dwellings containing contagious diseases.

If the Inspectors were to undertake this inspection without orders from the Board, or the public being in some way notified of or interested in the work, we should be deemed interlopers in many cases, and our efforts subjected to great opposition. Even now actions often speak as plainly as do the words announcing that " This is my house ; I've lived in it always ; was born in it, and have never been sick ; I have a plumber of my own, and don't want any assistance from the Board of Health. Five dollars is all you are after," etc.

On the other hand, many owners court the scrutiny of the Inspectors, sending for them to examine their dwelling, and comply quickly with all suggestions. The public require educating up to the sanitary point.

Garbage and Ashes.—Since my last report no new features have been developed. The stationary, wooden, often metallic-lined garbage receptacles are still in use, and open to the same objections as before. The miscellaneous receptacles, boxes, pans, pails, kettles, etc., are still in common use, and are always a nuisance from being filled too full, kicked over, and having their contents blown into the faces and the rooms of the inhabitants. Numerous orders of the Board, calling for separate portable metallic receptacles, have been enforced, and against the earnest objections of the owners. The reasons usually advanced are :

1st. What is the use of having two (one for ashes and one for garbage), their contents are dumped together into the same cart by the ashman.

2d. They are battered and spoiled by the boys and the ashmen.

3d. The ashman not coming regularly, their capacity is too small to contain the collection of more than one day.

4th. They are too expensive to be often replaced.

5th. The stationary ones are just as good.

I think that we must agree with the owners in all but the last, and that all orders calling for separate, portable garbage receptacles have some ground for seeming burdensome to the owners of property. The only true remedy (so it seems to me) is for the Health Department to collect the ashes and garbage. As soon as this is done all the oft-repeated arguments of owners, agents, etc., fall to the ground, and orders calling for a separation and separate storing of such collections can be enforced with every sense of justice upon the side of the Board. Again, the ashes thus collected, often being subjected to the scrutiny of the Board, could be safely used for filling in the " Harlem Flats " even. The garbage could be suitably disposed of, with no greater expense than the present system involves.

Contagious Diseases.—Since my last report a thorough system of vaccination has been begun, through the establishing of a Vaccinating Corps. This will necessarily lessen the extent and virulence of that public pest—small-pox. The removal of all cases which *cannot* be isolated, leads me to state some of the rules followed by myself in isolating cases :

1st. There should be two rooms, one for the patient, the other for the attendant. All communications from the patient's room with the external air, other than the attendant's room, should be tightly closed, and kept so. All cracks around such openings should be thoroughly tamponed with cloth, kept saturated with a disinfectant. All openings from attendant's room to hallway and other rooms should be kept closed.

2d. The door between patient's and attendant's room should be closed, when the door from attendant's room into hallway is from necessity opened.

3d. No one should be allowed to enter either room, except the physican, inspector, or other persons duly authorized.

4th. No attendant should be allowed to pass out of the room under any consideration.

5th. No one should be allowed to enter (physician or inspector not excepted) until after being challenged by " Who's there ? "

6th. All food, etc., required should be placed by an outside attendant at the door ; who, after announcing its presence, departs, when it is taken in, without passing into the hallway.

7th. No one or nothing should be allowed to pass out of either room into hallway or other rooms, or external air, without having been first disinfected.

8th. All inmates of house and adjoining dwellings should be vaccinated.

9th. It is very essential to success to state clearly and repeatedly to each attendant, and to the patient and friends, that any violation of these rules will lead to immediate removal of the patient to the hospital, and to be certain they are understood by having them repeated by such attendants or friends.

It has been my custom to visit the premises often, at no regular intervals or time of day when, if the rules were found to have been violated, the patient was removed, if life was not endangered thereby.

These are the rules which I have endeavored to enforce, and, in a majority of cases removed, the patients and friends have attached no blame to the Health Department.

I will state that during a service of over two and a half years, I have never, to my knowledge, had a case follow an isolated one—have never had the doubt arise that it might have been due to it.

I think it would be advisable to give to the friends and attendants of all isolated cases printed instructions, together with the penalty of non-compliance.

Diphtheria, *Typhoid Fever*, *etc.*—The former, especially, has been very prevalent during the last year. A systematic study of these diseases has been begun ; yet, while far from reaching the definite cause, it has established conclusively that they are closely associated, in a great majority of cases, with overcrowding, poor ventilation, and bad plumbing. It is a noticeable fact that, when occurring in tenement houses, the plumbing is not found to be as bad as when occurring in private dwellings. To strike at the root of these diseases will require an architectural and social reconstruction of the present tenement house system.

Public Baths.—Their number should be largely increased ; their importance cannot be over-estimated.

The following statement comprises a summary of inspections and re-inspections made during the last twenty months:

Tenement houses	4,822
Private dwellings	1,103
Cellars and basements	534
Factories and workshops	245
Privies	930
Stables	401
Waste pipes	642
Other buildings	375
Other nuisances	146
Fat rendering	271
Yards	312
Streets and sidewalks	167
Vacant lots	80
Contagious diseases (Isolated cases.)	167
Stores and warehouses	29
Roof leaders	19
Marine dumps	62
Street cars	11
Markets	15
Slaughter houses	4
Garbage receptacles	6
Garbage dumps	4
Cattle pens	3
Hydrant	1
Total	10,549

COMPLAINTS.

Tenement houses	370
Private dwellings	113
Cellars and basements	210
Privies	465
Waste pipes	242
Stables	70
Yards	92
Streets and sidewalks	120
Other buildings	20
Vacant lots	25
Fat rendering	8
Factories and workshops	9
Manure dumps	7
Roof leaders	4
Garbage receptacle	1
Hydrant	1
Stores and warehouses	1
Total	1,758

Reports on application for permits	7

REPORTS ON CONTAGIOUS DISEASES.

Small-pox	208
Diphtheria	141
Typhoid fever	20
Measles	5
Syphilis	1
Scarlatina	1
Total	476

Respectfully submitted,

JOS. D. BRYANT, M. D.,
Sanitary Inspector.

To W. De F. Day, M. D., *Sanitary Superintendent:*

Sir—I have the honor of submitting the usual annual report of the sanitary condition of my district and the work performed by me as Sanitary Inspector from May 1, 1874, to December 31, 1875. Previous to February, 1875, my duties were wholly confined to that part of the city comprised in the Eighth Ward. Subsequently my district was considerably enlarged by the addition of the Ninth Ward and that portion of the Fifteenth Ward lying west of Broadway. This district, covering such a large portion of the city and being wholly built upon, requires the constant attention and watchfulness of the Inspector in order to have the laws of the Board of Health strictly enforced. A great variety of features is presented in this district, including hotels, business houses, manufacturing establishments, tenement and private houses. Comparatively few complaints were received from that portion bordering on Broadway and contiguous streets, in consequence of its being chiefly devoted to business and manufacturing purposes. My labors were principally confined to those parts of the district where tenement houses are located. In the construction of tenement houses the principal feature noticed was the improvement in ventilation. In this respect they show a marked superiority over those erected some years ago.

The plumbing of tenement houses is found, upon careful examination, to be generally defective, in that proper stench-traps are not provided in the waste-pipes of the sinks, and that the waste-pipes themselves are not extended above the roof, thereby allowing the escape of the offensive odors into the house, endangering the health of the occupants. In the investigation of many cases of diphtheria and typhoid fever I found, upon an examination of the house-drainage in the majority of cases, no stench-traps in the waste-pipes of the sinks, and, as a consequence, the sewer gases were allowed to escape into the interior of the dwelling. More attention has of late been given to the interior of this class of dwellings; they are cleaned oftener and whitewashed more regularly and give very little cause of complaint on this account. The yards and alleys of tenement houses are kept pretty clean, owing to the stringency of the law compelling the owners to have separate receptacles for ashes and garbage, although in many cases these vessels are used for a time and afterward thrown or taken away. Where this occurs the filth is either deposited in the street-gutter or in the yard.

Very little change for the better is noticed in the condition of the water-closets and privy-vaults. In many houses where the old hopper water-closets were found, which were offensive, complaints were made causing their removal and the substitution of the pan water-closet. The closets of some houses were so situated that they had no ventilation except by the door of entrance; in such cases ventilating shafts were ordered to be extended at least two feet above the neighboring roof.

The great difficulty of keeping the streets clean is mainly owing to the pavement. Most of those that are in a filthy condition are paved with cobble-stones. The constant traffic over these cause depressions in which the surface water collects and becomes stagnant. During the winter and early spring such streets are in a very bad condition.

The chief source of complaint against stables is on account of the quantity of manure allowed to accumulate in the yards after the vaults have become filled. This occurs more frequently during the winter season, when the streets are in such a condition as to prevent its removal regularly.

Within the past few months small-pox has prevailed to a considerable extent throughout the district, but strict and rigid isolation, removal to hospital, disinfection, fumigation, and thorough vaccination in the house and vicinity of each case, have prevented its assuming any serious epidemic form.

SUMMARY.

The following table exhibits a summary of inspections, re-inspections, and complaints made during the past twenty months:

INSPECTIONS AND RE-INSPECTIONS.

Tenement-houses	5,382	Public buildings	14
Private dwellings	280	Stores and warehouses	37
Boarding and lodging-houses	49	Factories and workshops	71
Cellars and basements	378	Privies and water-closets	1,256

INSPECTIONS AND RE-INSPECTIONS—(*Continued*).

Yards and alleys	355	Markets	5
Sidewalks and street gutters	179	Docks	7
Stables	563	Cesspools	4
Waste-pipes and drains	387	Street culverts	5
Vacant lots	28		
Chimneys	34	Total	9,034

COMPLAINTS.

Tenement-houses	317	Waste pipes and drains	160
Private dwellings	49	Chimneys	17
Cellars and basements	56	Vacant lots	10
Boarding houses	11	Factories and workshops	22
Stores and warehouses	23	Sidewalks and street gutters	75
Public buildings	9	Street culverts	3
Yards and alleys	87	Cesspools	2
Privies and water-closets	325		
Stables	48	Total	1,214

CONTAGIOUS DISEASES.

Small-pox	256	Typhoid fever	8
Diphtheria	85	Measles	7
Chicken pox	14		
		Total	370

VACCINATIONS.

Primary	78
Secondary	591
Total	669

Respectfully submitted,

BERNARD HUGHES, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

To DR. W. DE F. DAY,
Sanitary Superintendent :

SIR—I have the honor to present this report of my duties as Assistant and Sanitary Inspector for the year ending December 31, 1876. A part of this time was spent in my old district, on the west side of the city, between Fourteenth and Twenty-sixth streets, Sixth avenue and North river. The other portion was devoted to my present district, bounded on the south by Fortieth street, on the north by Seventy-second street, on the west by Sixth avenue, and on the east by the East river. This district is an important one, as it contains buildings where certain industries are carried on that may be very offensive to a large class of people unless rigorously kept in good sanitary condition by the Inspector.

I will enumerate these places as: The slaughter-houses, the gut cleaners, fat melters, manure dumps, offal dock, and car stables. Some of these are proscribed by law, and must therefore be put down and crushed out by arrest and other legal proceedings. I need hardly allude to the high-handed defiance of some contractors who kept certain vacant and sunken lots by the river side constantly filled with many hundred loads of horse manure. Another class of troublesome people were the gut cleaners. One of these firms, which had resisted all the ordinary means to remove them, was finally driven out of the district by a heavy fine, which it paid rather than go to jail. A problem that the future alone will solve, is the question of slaughter-houses. Abattoirs have been shown to be the only proper places for the trade, but until the Board have the power to make the people move who are now huddled together in small districts and small slaughter-houses, the nuisance must exist. We have personal, political, and moneyed and religious influences to cope with, and they are all enlisted with the people who are imperilling the health of the public.

Slaughter-houses.—There are twenty-three of these places in my district devoted to the killing of beeves, calves, sheep, and lambs. They are all small, and, in spite of constant cleaning, very dirty. The streets in front are filthy with straw, animal matter, and other offensive substances. The thoroughfares are crowded with wagons and carts.

Fat Melters.—There are several establishments on the river side, all well conducted, and provided with approved air-tight chambers for melting. The fumes are discharged under the river surface at low water level. Several of these places are connected with slaughter-houses. The fat used is for the most part fresh. The scrap is pressed in cakes, and the tallow is sweet smelling. The scrap is frequently removed. There is a small escape of smoke from the stacks.

Gut Cleaners.—There is but one establishment of this kind, and the owners are now served with orders to stop the work. This is a most foul and offensive trade, for the guts, to be properly scraped, should be partially decomposed, so that the mucous membrane is readily detachable from the fibrous sheath.

Rennet Salting can hardly come under this head, and I have recommended permits for two of these establishments. Sausage making is an important industry among the Germans of my district, and I consider that this business should be as closely inspected as other offensive trades. The lovers of sausages would have other dreads than that suggested by the traditional canine or feline adulteration if they knew their composition. The most filthy scrapings, dried bits, soft fat, and refuse that is almost valueless, and only of use if it can be chopped up so as to lose its identity as meat, and put into the scraped guts I have before alluded to, forms the sausage of trade.

Offal Dock.—The parts of slaughtered animals that cannot be utilized are carted daily to the foot of East Forty-second street, where they are disinfected and carried away in sloops to Barren Island. This dock is not near any dwelling, so that there is little cause for complaint.

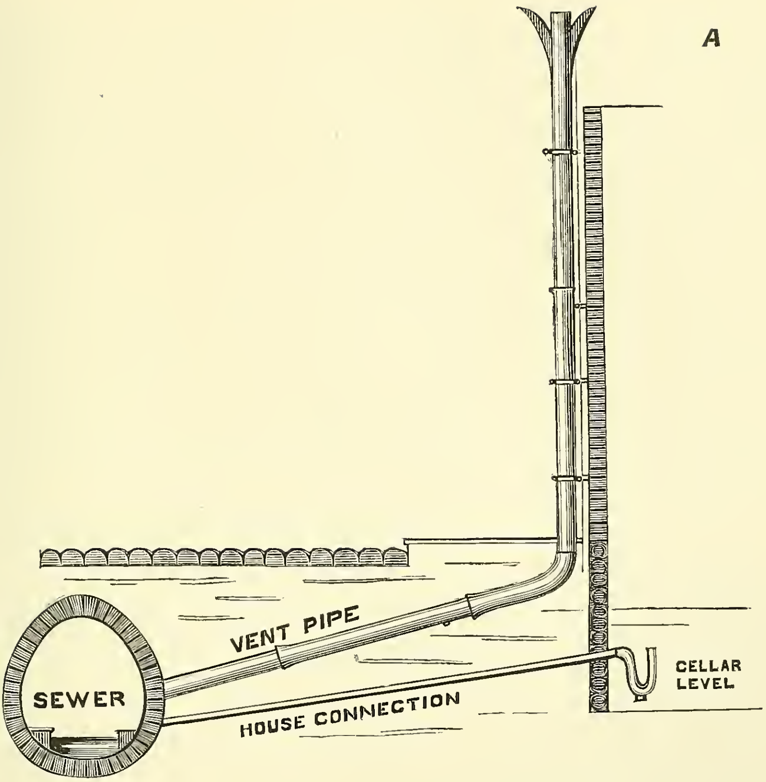
Manure Dump.—The large tract between Forty-sixth and Forty-seventh streets on the river side, has been used by Kane and Savage for dumping purposes. The manure from the different stables in the city is brought here by the carts of the firm and bought at a low figure. It lies for some time, usually till decomposition is fairly advanced, and is then sold for a good price to farmers and others for fertilizing. In the hot weather this nuisance was unbearable, and provoked newspaper notice, petitions, and other expressions of just wrath from a long-suffering public. Through "law's delays" the offenders have reaped fortunes; arrest is the only remedy that will stop them. The manure of the city should all be dumped on sloops and carried away, and not allowed to lie for any length of time upon any ground in the city limits. The existence of one nuisance is very apt to make other people bold and careless, so that a nuisance by seeming contagion will corrupt a whole neighborhood, making it dirty. Already the tenement houses of this locality are in a most foul condition. The inmates seem to be slovenly, and certainly lack the neatness and thrift of people in other localities; for example, a door out of repair is suffered to remain so; a loose stone in the sidewalk trips people up, but they are too shiftless to repair it. The walls are smeared with filth, and the gutters are filled with old boots and straw.

Breweries.—There are many of them in this region. Although kept in good condition, fermenting malt has a peculiar and penetrating smell that is not entirely agreeable. This smell is quite strong in the neighborhood of the malt house in Forty-seventh street near First avenue.

Tenement Houses.—For the great part the tenement houses are well kept. They are mostly of recent construction, and are occupied by Germans, who are notably a clean and neat people. Some of them are marvels of tidiness, and on Saturday afternoons their white floors and well-swept sidewalks are good examples for their careless fellow-citizens at the other extremity of the city. Thanks to the energy of my predecessor, Dr. Post, I have been saved the necessity of ordering many ventilating shafts or traps; in fact, the drainage and sewerage of this part of the city is excellent. I would suggest reform, however, in the construction of adjustable covers for privy seats. The wooden covers usually recommended are generally stolen for firewood by the tenants or broken up. It has occurred to me that thin sheets of galvanized iron would be much more serviceable. They should be as thick as ordinary boiler iron.

I have been struck forcibly by a fault of certain tenants, and oftentimes health has been endangered considerably by a lack of care. I allude to the evaporation of water in unused traps. In some of the apartment houses where floors are untenanted during the summer, the sinks or closets are not used; the water evaporates from the traps and sewer gas enters the building. If housekeepers would exercise a little caution, and fill the traps from time to time, much sickness might be averted.

Sewerage.—Nearly all the streets are provided with sewers, but on account of the hilly character of this district, the sewer-gas is likely to rise to the highest points with uncommon force, and as a result must "blow out" the traps in the houses built upon elevated land. Putting aside the question of escape pipes in the houses, I would suggest the adoption of the English plan of gas vents or shafts connected with the main sewer-pipe in the streets. If these were placed at different points of the city where the altitude is considerable, and conducted along the sides of buildings, I think the houses would be more free from sewer gas than they now are.



There are many sewers in the city composed of earthen pipes. I have so often witnessed the unserviceableness of these that I feel it my duty to protest against their usual form. If they are to be used at all they should be of a different shape and well braced. It is a very common thing to take them up in a broken condition.

Shanties.—One of the worst evils the sanitarian meets with is the shanty nuisance. The erection of private residences or large buildings will only effect their removal, and complaints and orders will only do temporary good. Goats, cows, pigs, geese and chickens, with smaller animals of the order *insectivora*, occupy both interior and exterior. The morals of the human beings that inhabit them are of the worst order, and the mode of life is dependent upon the filth of the surroundings. The police have brought more than one murderer from their midst, and as they now are, sanitary and other laws are defied with equal bravado.

A word in relation to the Fourth avenue improvements. Instead of the chaos of rocks, scaffolds, beams, and steam-drills of a year ago, we now find a well graded street, containing a well ventilated tunnel. Buildings are being commenced, and lots drained along Fourth avenue, and the days of accidents and noisy locomotives are past till the rapidly growing city pushes over to the new districts.

Contagious and other Diseases.—During the winter small-pox has raged with considerable violence. It seemed to spend its force upon the district between Forty-third and Fifty-fourth streets, Third and First avenues. The cases were mostly severe and fatal. Varioloid was exceptional. Butchers on the east side and their families made First avenue and the vicinity a focus for the most of it. Again, in Sixty-sixth and Sixty-third streets it broke out. The establishment of the hospital under this Board made people more ready to go than they once were, and there was very rarely any necessity for joint reports. Vaccination did great good, and the readiness of the people to avail themselves of the services of the vaccinators was noticeable. Other diseases have been exceptional, leaving out diphtheria. This fatal malady prevailed with great virulence, and it was the subject of special work. I have inspected the street cars in relation to cushioning and ventilation, and find the three lines in my district in fair condition. No reforms have been made in ventilation, but many of them have appeared with wooden seats.

The following is a summary of inspections and re-inspections, with complaints thereon during the year and a half ending December 31, 1875:

	INSPECTIONS AND RE-INSPECTIONS.	COMPLAINTS.
Tenement-houses	6,327	743
Slaughter-houses	1,232	7
Private dwellings	213	74
Other dwellings	75	5
Stores	66	25
Factories and workshops	14	1
Schools	3	1
Public buildings	1	
Cellars and basements	12	4
Yards and areas	471	150
Street pavements	46	46
Lumber yards	2	1
Coal yards	3	1
Gas works	4	1
Breweries	8	3
Privies	364	72
Vacant lots	144	5
Offal docks	12	
Horse marts	2	
Hotels	1	
Gut cleaners	5	5
Lard and fat melters	52	5
Stables	55	29
Manure dumps	14	8
Miscellaneous		2
Total	9,128	1,188

REPORTS UPON CONTAGIOUS DISEASES.

Variola	374	Diphtheria	59
Varioloid	15	Cholera (?)	1
Typhoid	5		——
Varicella	3		457

Respectfully submitted,

ALLAN McLANE HAMILTON, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

W. DE F. DAY, *Sanitary Superintendent:*

SIR—I have the honor to transmit a report of work performed by me in the service of the Sanitary Bureau, from May 1, 1874, to January 1, 1876, a period of twenty months.

From May 1, 1874, to February 1, 1875, I continued to have sanitary supervision of the lower portion of the Twenty-second Ward, of which district I wrote in my last annual report.

During this time an eminently successful attempt was made to improve the ventilation of the street cars of the Eighth avenue line, which improvement is giving great satisfaction, not only to the traveling public, but to the officers and employees of the line, who have been taught that fresh air without a direct draft is conducive to health and comfort.

The general health of the district was good, though diphtheria was prevalent in some localities, chiefly in the tenement-house district ; and special inspection of houses wherein the disease occurred was made, with the result oftentimes of finding an untrapped waste-pipe or cellar wet from faulty drainage, which condition was remedied as speedily as possible.

February 1, 1875, I was transferred to the district bounded by West Fifty-ninth street, Sixth avenue, West One Hundred and Twenty-fifth street, and North river, a district comprising two and a half square miles of territory, with much of it in a state of transition from country to city ; deprived in many places of the natural drainage which the original water-courses had provided, and not yet supplied with sewers to compensate therefor. This is notably the case at Ninth avenue and One Hundredth street, where both streets and avenues have been filled in without the construction of a culvert to carry off the large quantity of water which collects and stagnates above these "dams." Much has been done to remedy such evils as these, by restoring old water-courses to usefulness, but much still remains to be done.

Many sewers are now under contract or in process of construction, which, when completed, will greatly improve the sanitary condition of the district. The neighborhood of One Hundred and Tenth street, between Tenth avenue and the Boulevard, has the promise of being speedily relieved from its present deplorable condition of bad drainage, by the completion of its sewer ; after which time sanitary measures can be enforced, which will greatly benefit the inhabitants of this locality. The same blessing is in store for the low lands between Eighth and Ninth avenues, and Ninety-fourth and One Hundred and First streets.

In many streets sewers have been for some time completed, yet sometimes the owners and occupants of houses in these streets have failed to connect their premises with them, but have allowed their refuse, slops, and filth to be discharged into the street-gutter, or into cess pools, which are filthy in the extreme. I have been often able to detect the location of such cesspools by finding a portion of the grass on the lawn dying or dead, having been killed by the deadly gases generated by decaying animal and vegetable matter beneath the fair surface. These cesspools, having no other means of ventilation than through the waste-pipes into kitchen and sleeping apartments, were a source of great danger.

In scores of cases where this condition was found to exist, complaints were forwarded, and the owners compelled to make proper connection with the sewer.

Strenuous and somewhat effective efforts have been made to improve the sanitary condition of the shanty population, by enforcing orders against filthy yards and out-houses, by the cleaning of piggeries and removal of pigs, thus interfering with the business of swill gathering and its subsequent dumping upon vacant lots.

There has been a wonderful decrease in the number of cases of malarial diseases, and the few cases that have occurred have shown a mildness and readiness to yield to appropriate remedies quite unknown in former years. That this change is largely due to improved sanitary conditions cannot be doubted.

Cases of small-pox and diphtheria have been rare.

The public institutions in the district are in admirable sanitary condition, and have had entire freedom from epidemic diseases. The district is particularly fortunate in the absence of serious nuisances. The "manure dump" at the foot of West Sixty-second street, being remote from occupied dwellings, has not been the subject of complaint.

The numerous vegetable gardens have small accumulations of manure in the winter season, which, being moved in early spring, do not endanger the public health.

The following is a tabulated statement of work performed by me during the past twenty months:

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	4,867	Privies	472
Private dwellings	417	Vacant lots	283
Other dwellings	3,296	Slaughter-houses	855
Public buildings	38	Other nuisances	423
Stores and warehouses	30	Piggeries	17
Factories and workshops	89		
Stables	437	Total	11,224

COMPLAINTS FORWARDED.

Tenement houses	715	Privies	151
Private dwellings	123	Vacant lots	70
Other dwellings	432	Other nuisances	105
Factories and workshops	17		
Stables	128	Total	1,741

RE-INSPECTION AND NEGATIVE REPORTS FORWARDED.

Tenement houses	411	Privies	465
Private dwellings	70	Vacant lots	94
Other dwellings	287	Other nuisances	197
Factories and workshops	18		
Stables	168	Total	1,710

Number of visits to contagious diseases	323
Families visited for purpose of vaccination	633
Number of vaccinations performed	168

All of which is respectfully submitted.

W. A. EWING, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

DR. W. DE F. DAY,
Sanitary Superintendent:

SIR—I have the honor to submit the following report of services performed by me in the capacity of Sanitary Inspector, from May 1, 1874, to January 1, 1876.

From May 1, 1874, until February 1, 1875, my work was confined to the Fourth Ward. Subsequently my district was enlarged by the addition of the Sixth, Seventh, Tenth, Thirteenth, Fourteenth, and portions of the Eleventh and Seventeenth Wards. The Sixth and Fourteenth Wards were afterwards placed under the supervision of Inspector Tracy, leaving me with the district which I now hold, the boundaries of which are as follows:

On the north by East Houston street, on the south by Fulton street, on the west by Broadway, Park row, Chatham street, and the Bowery, on the east by the East river. This district is one of the most thickly populated in the city, and presents a fine field for sanitary work.

Tenement Houses.—The inspection of this class of houses has been systematically carried on, and in addition to general cleanliness, as regards yards, cellars, and interiors, I have endeavored to improve the sanitary condition of all such houses as are connected with the street sewers, by the introduction of traps in the waste-pipes underneath each sink, and by the proper ventilation of the main waste-pipe. The benefit of the latter measure, and its practical working, have impressed me most favorably. In nearly every case of diphtheria and typhoid fever which I have been called upon to investigate in tenement houses, I have remarked the absence of traps in the waste-pipes of the sinks, and the proper ventilation of the soil pipes.

Cellars and Basements.—There are about 400 cellars and basements in my district which have been formerly occupied as places of sleeping and lodging, and which have been heretofore condemned by the Board of Health as unfit for such purposes. In all of these cases I have succeeded in enforcing the law, with two or three exceptions, and I find popular sentiment strongly with the Board as regards this action.

Public Buildings.—During the year I have inspected six public buildings, notable among which was the structure occupied by American Tract Society in Nassau street, and the Sailors' Home in Cherry street, in which valuable hygienic improvements as to drainage and ventilation were introduced upon orders made by the Board.

Stores and Warehouses. Factories and Workshops.—Most of these have been visited upon complaints made by persons employed or doing business in such places, and the nuisances complained of have for the most part consisted of defective sewerage and plumbing.

Markets and Market-places.—I have frequently inspected the markets in my district, all of which are in a fair sanitary condition, with the exception of Fulton Market, the drainage of which I have always found to be very imperfect; for instance, on one occasion I observed that all the drainage from the living rooms on the second story of one portion of this structure was discharged through a tin pipe into an open drain close to a vegetable stall, giving rise to a very offensive odor. We can only look forward to the time when a new edifice, constructed on better sanitary principles, shall take the place of the present unsightly and filthy collection of the wooden buildings, now constituting Fulton Market.

Stables.—There are a large number of stables in the district occupied by horses and cows. In many cases I have endeavored to improve their condition by proper sewer connection, thorough cementing of the surface of the earth underneath the floors, and the construction of proper manure vaults, with tight fitting covers. In other instances, especially where cows were kept in large numbers, and the premises were in a very filthy and offensive condition I have recommended their permanent vacation on general sanitary principles, being convinced that the quality of milk produced by cows crowded together in filthy stables, with insufficient ventilation, and fed mostly on brewery mash, must be unwholesome to consumers.

Streets, Street Gutters and Sidewalks.—I have found frequent cause of complaint in regard to the sunken, broken, and poorly graded condition of streets, street gutters, and sidewalks, inviting the accumulation of filth and stagnant water, besides endangering the lives and limbs of pedestrians and persons riding in vehicles.

Privies.—In all cases where privy vaults were located within twenty feet of living-rooms of dwelling houses, and in inclosed spaces, preventing the proper diffusion of offensive odors and gases, I have recommended the construction of proper ventilating shafts, and increased experience has but confirmed my conviction as to their utility.

Contagious Diseases.—During the winter of 1874 and 1875 I investigated a large number of cases of small-pox, which was confined mostly to the Tenth, Thirteenth, Eleventh, and Seventeenth Wards.

The following is a summary of work performed by me from May 1, 1874, to January 1, 1876:

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	6,400	Markets and market places	5
Private dwellings	19	Stables	151
Other dwellings	267	Streets, street gutters, and sidewalks.	647
Cellars and basements	359	Privies	924
Public buildings	12	Sunken and vacant lots	16
Stores and warehouses	120	Piers and bulkheads	1
Factories and workshops	49		
Fat rendering establishments	2	Total	8,972

The following complaints have been forwarded to the Board:

Tenement houses	701	Streets, sidewalks, and street gutters	344
Private dwellings	5	Stables	37
Other dwellings	103	Market and market place	1
Cellars	51	Pier and bulkhead	1
Public buildings	4	Vacant lots	5
Stores and warehouses	33	Special reports	5
Factories and workshops	16	Violations of Sanitary Code	2
Privies	274		
		Total	1,582

The following contagious diseases have been visited :

Small-pox	201	Typhoid fever	16
Varioloid	66	Relapsing fever	1
Varicella	4	Supposed and absconded cases small-pox	10
Diphtheria	26		
Scarlet fever	1		
		Total	325

Respectfully,

C. E. LOCKWOOD, M. D.,
Sanitary Inspector.

NEW YORK, January 1, 1876.

DR. WALTER DE F. DAY, *Sanitary Superintendent:*

SIR—I have the honor to submit the following report of my labors as Assistant Sanitary Inspector during the nine months extending from May 1, 1874, to February 1, 1875, at which time I was relieved from duty; and also from May 1, 1875, the date of my re-appointment to service in the Health Department, to January 1, 1876.

For the period first named my duties were confined to the Seventeenth Ward of the city. During the latter period I was assigned to duty in the Fourth and Seventh Wards. With reference to the former district I may mention that many desirable changes were effected during the time of my service therein, consisting most noticeably in repairs to street pavements and in the substitution of new tenement houses for those which had become dilapidated and unfit for human habitation. Several alterations of this kind are now in progress. The plan of construction observed in these new buildings testifies to a more thorough appreciation among owners of property and builders than has formerly prevailed of their sanitary requirements, the most approved means being secured for obtaining light, ventilation, and drainage. In regard to the street pavement repairs, I may add that while the aspect of certain streets has been greatly improved by the grading of the ground and relaying of the cobble-stones, others for want of similar repairs are never thoroughly cleaned, and present ofttimes a deplorably filthy condition. The streets of the latter description are located in the eastern and southern portions of the ward. As affecting the sanitary condition of this section, there are several facts to be mentioned and to which must be attributed whatever immunity from disease its inhabitants may enjoy. They relate in the first place to the drainage of the district, which, with the exception of a small portion of its area, is very good; secondly, to the small number of cellar habitations; thirdly, to the generally respectable character of the tenement houses; and lastly to the cleanliness and frugality which, to a large extent, characterize the population. The Fourth and Seventh Wards, on the other hand, present throughout a large part of their areas a lamentable absence of these favorable conditions.

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House Drainage, etc.—My sanitary labors, of which the appended tabulated record shows the character and distribution, have been devoted largely to tenement dwellings, and especially to those localities where a strict supervision over the inhabitants is required. Most of the complaints made against these dwellings have related to defective house drainage; which, in the older buildings, is a constant source of annoyance and discomfort to tenants. It may be a sewer-connection too small, causing frequent obstructions, or a leaky waste-pipe; but more commonly the evil is due to the absence of stench-traps in these pipes, and of means for their ventilation. In every case where these latter defects have been found, a complaint has been forwarded, with the recommendation that a suitable trap be placed beneath each sink or basin within the premises, and that the pipe, if it enter a dwelling apartment, be extended to a height of two feet above the roof of the house, opening at its free extremity; the protection thus afforded against sewer-gases is usually complete.

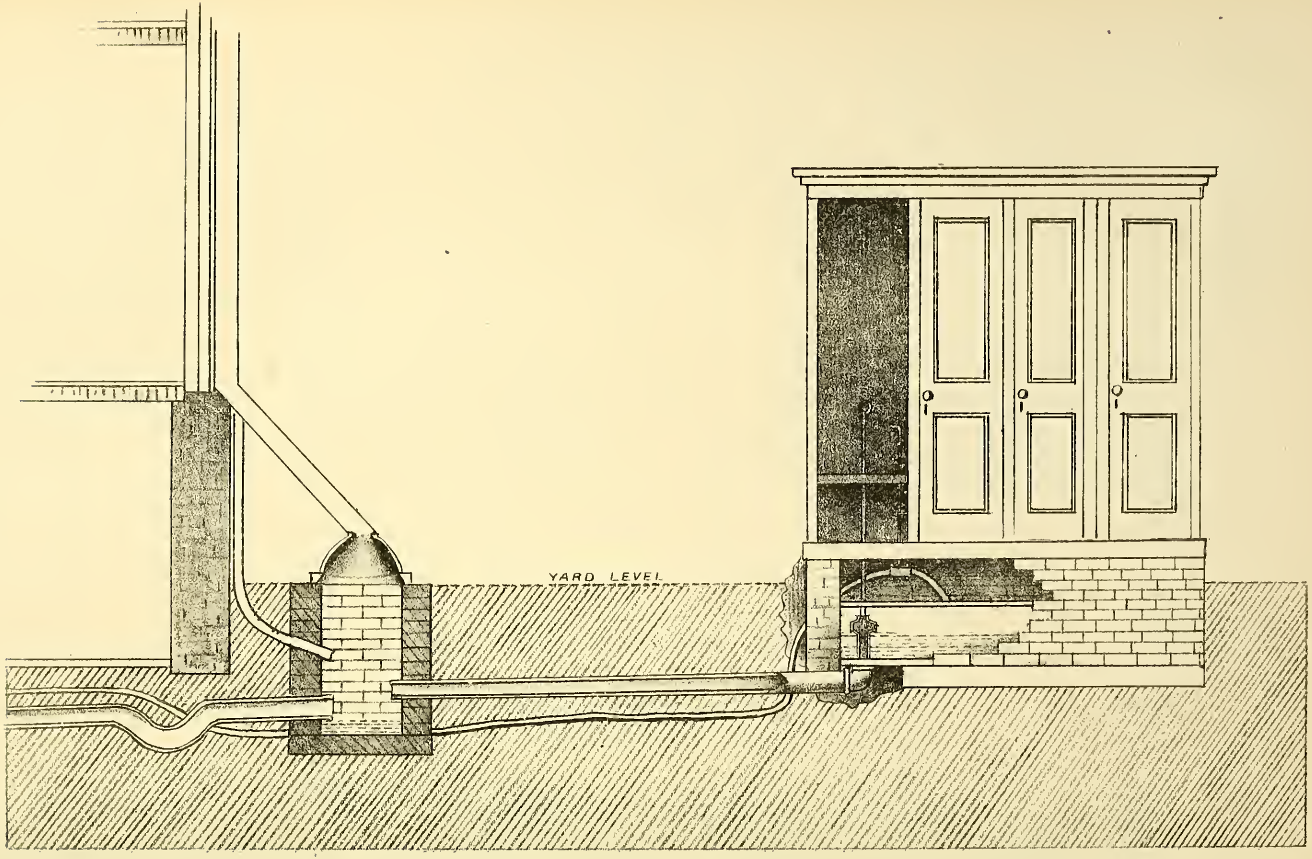
Many instances of the deleterious effects to health, from these gases, have come under my notice, and it has been observed especially among the children of our tenement house population. The source of the trouble is not usually appreciated by tenants; while on the other hand, they augment its dangers by the inconsiderate closure of windows and every other aperture by which foul air might escape from or fresh air enter their rooms.

This subject is a very grave one, affecting so widely the class referred to, and it suggests the necessity for an ordinance requiring that all soil and waste pipes be trapped and ventilated in the manner described; and, further than this, that all sinks in tenement houses shall be located in anterooms or hallways; for, however effectual the above precautions may be, for the purpose required, they do not obviate all the objections which may be raised to the presence of sinks in dwelling apartments.

I am happy to note that in the tenements lately constructed, the plan of placing the sinks in the hallways is uniformly adopted.

Privies.—Second only in importance to the foregoing subject is that of privies or receptacles for human excrement. Many improvements in the condition of yard-vaults have been made, which have consisted in the emptying, cleaning, disinfecting, repairing, or ventilating them, as the case may have called for. The measure in use for the last-named purpose, of erecting above the vault a metallic shaft, when, by reason of its close proximity to a dwelling, it is a source of offense, is fully justified by the results. For its effectiveness, however, it is necessary that the sections of pipe be well jointed, that the privy house to the vault walls be closely adjusted, and that the openings in the seats of the privy house be provided with covers—conditions not always secured. A shaft descending into the vault through the privy house, at a central point, is more effectual, I have found, than where it enters at the side from beneath the ground. This appliance is, at the best, but palliative, and is far from rendering the present system inoffensive. Much better, in my estimation, is the school-sink, and I do not see why it should not generally take the place of the vault where, from the irresponsible character of the tenants, the water-closet would be impracticable. The objections which sometimes exist to this method may be avoided by attention to the following particulars: the sink should be situated in a yard or courtway; it should be encased in masonry and placed at a sufficient depth in the ground to prevent freezing; it should be plugged in a manner that will allow the escape of water when it has risen to a certain height in the trough, and should be provided with an independent Croton supply pipe; finally, there should be placed in its discharge-pipe a suitable trap, with a ventilating shaft extending therefrom to a point above the adjoining dwelling. This trap may be an ordinary siphon, or much better, made of brick and cement, in the form of a man-hole, and surmounted by an adjustable iron cap, into which is received the lower extremity of the ventilator. This man-hole would naturally be situated near the rear wall of the dwelling, thereby facilitating the erection of the shaft, while into it could be conducted the drainage from the roof.

Permit me to suggest once again that for the ventilation of the ordinary sewer-connected vault, a similar arrangement to the above would be valuable, for thereby the gases emanating from the sewers, which occasion mainly the offensiveness of these vaults, would be caught as they arise in the man-hole and conducted above the house-top.


YARD LEVEL

Contagious Diseases.—The epidemic of small-pox, which prevailed during the autumn and winter of 1874 and 1875, fell with exceptional severity on the inhabitants of the Seventeenth Ward, as reference to the small-pox chart will show. Much of my time has been spent in the inspection of these cases and re-inspection of infected localities. Of the cases visited and reported by me, eight or ten were treated at their homes, the remainder were transferred to the hospital. Experience has fully convinced me that the successful isolation of small-pox patients in tenement houses is impracticable, and that isolation is justifiable only when removal would hazard the life of the patient. It is equally true that the forcible removal of these persons from their homes, attended, as it necessarily is, with much mental excitement and bodily exhaustion, must operate many times to their injury; but of two evils it is the least. The mortality returns show that scarlatina and diphtheria have, as in former years, prevailed in the above-named wards. Of the latter disease I have visited eighty cases—cases which had been reported to the Board as diphtheria—but I am safe in stating that in not more than one-fourth of this number has the typical character of this disease been found. It has often occurred in my experience that where true diphtheria has existed, there has prevailed among the inhabitants of the same house or neighborhood a tendency to sore throat of more or less severity.

SUMMARY OF WORK.

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	5,482	Wastes and drains	169
Private houses	322	Factories	22
Other dwellings	177	Fat rendering	12
Public buildings	6	Market places	2
Stables	76	Vacant lots	23
Cellars	202	Warehouses	21
Privies	1,091	Yards and courtways	4
Sidewalks	264		
		Total	7,873

COMPLAINTS.

Tenements	688	Privies	250
Private houses	15	Vacant lots	6
Sidewalks	164	Street pavements	4
Cellars	56	Factories	3
Other dwellings	11	Yards	2
Stables	10		
Wastes and drains	39	Total	1,248

CONTAGIOUS DISEASES VISITED.

Variola	330	Diphtheria	85
Varoloid	144	Rubeola	13
Varicella	6	Typhoid fever	2
Scarlatina	7		
		Total	587

Vaccinations	193
Families visited while vaccinating and re-inspecting infected houses	2,707

Respectfully submitted.

C. H. ATWATER, M.D.,
Assistant Sanitary Inspector.

New York, January 1, 1876.

Walter De F. Day, M. D.,
Sanitary Superintendent:

Sir—I have the honor to present the following report upon the sanitary condition of my district, together with a summary of the inspections and other work performed by me therein, from April 1, 1874, to December 31, 1875. For a portion of this time I have also had charge of all that portion of the city north of One Hundred and Twenty-fifth street. This district embraces all the Twenty-third and a portion of the Twelfth and Twenty-fourth Wards, and is essentially different from most of the other sanitary divisions of the city, because it is still subject to the inconvencies of all suburban sections. Within the space of, comparatively, a few years the recent farm lands have year by year been encroached upon, residences, stores, and manufactories have been built, and streets, fine avenues, and broad boulevards laid out and constructed. All these have utterly changed the aspect of the country, and unfortunately sanitary regulations have not preceded these various improvements, but rather have followed only when imperatively demanded by the voice of public opinion. This district embraces, so far as Nature's handiwork is concerned, an area which ought to be the fairest and healthiest portion of the city, and which has every advantage of an easy and efficient natural drainage. But, in consequence of the rapid increase of population, the temporary nature of most of the public improvements and the almost utter disregard of drainage in the construction of streets and avenues, the sanitary amelioration of the district imperatively requires in a short space of time an amount of labor which, in other sections, has been distributed over many years. It is now evident that a complete system of drainage and sewerage should have preceded this influx of population, instead of having been neglected until it is impossible to relieve the many existing disadvantages with sufficient promptitude. The Twenty-third Ward, embracing what was known as the town of Morrisania, and having been for so short a time under the jurisdiction of the city of New York, can hardly be expected to exhibit so fair a record, especially in the matter of public improvements, as the older and better regulated wards of the city. During the past year a decided improvement has been made in certain localities by the filling in of various sunken lots and the drainage of others. No decided progress has, however, been made to secure what is most needed, the proper drainage and sewerage of this district. I am most happy to be able to state that certain initiatory steps have been taken by the Department of Public Parks, having this matter in charge, for the construction of a grand outlet in Brook avenue, from One Hundred and Sixty-fifth street, southerly to the Harlem river, and it is very probable that during the coming year this most important work will have been commenced, thus relieving this section of its greatest incubus, Mill brook. This stream is a natural watercourse, and receives the surplus surface water from a considerable portion of the Twenty-third and Twenty-fourth Wards. Two sewers are, however, made to discharge into it, one from Third avenue near One Hundred and Sixty-ninth street, the other from Third and Washington avenues, near One Hundred and Sixty-second street. It also receives a large amount of sewerage and waste water from several breweries, and from manufactories and dwellings near its banks. So that in the summer months, when its volume is greatly lessened, the water of the stream becomes contaminated. Accordingly the Board, in the months of June, 1874 and 1875, appropriated a sufficient sum for the cleaning out of the bed of the brook, and the disinfection of its banks. The work was done in the summer of 1874, under the supervision of Assistant Sanitary Inspector S. A. Goldschmidt, and in 1875 by myself. Special reports referring thereto were duly transmitted to the Board after the completion of the work. The improvement accomplished thereby, great as it was at the time, proved only temporary in its character. The inhabitants of this section look anxiously forward to the construction of the sewer that will relieve them of their present difficulties. The great expense of this long-needed improvement has perhaps heretofore been one of the chief obstacles to its construction, but even that should not be worthy of consideration, in view of the great benefit that would accrue upon its completion. For then lateral and intersecting drains and sewers can be readily constructed to relieve the adjacent localities of their present malarious influences. North of One Hundred and Sixty-fifth street the sewer should be continued at least to the northerly boundary of the Twenty-third Ward, at One Hundred and Seventieth street. In the Twenty-fourth Ward the bed of Mill brook should be deepened and straightened, and its sides walled up, as far as the Southern boulevard. These lateral drains could be readily constructed to relieve large areas of their present soil saturation, and probably meet the requirements of that section for many years to come. Various other sections of this district would also be greatly benefited by proper systems of underground drains. These have been the subject of several reports by me to the Board, and I confidently hope that such legislative action will be secured that these important works will be soon commenced.

The tenement houses of the district are comparatively few in number, and accommodate from four to six or eight families. In these buildings much good has been accomplished in securing proper ventilation, provision for which, in their construction, had been sadly neglected. In the general absence of sewers, and in the great prevalence of unpaved streets, it has been quite impossible to keep the surroundings in as good sanitary condition as could be desired, for it is mostly from necessity that waste water from such houses is made to discharge or is thrown into the street gutter, and it has been only by the strict surveillance of the Inspector that many of these places have been kept in a passable condition. The privies attached to these buildings are, with a few exceptions, situated in the yard. These, and those attached to private and other dwellings, have been ordered cleaned as occasion required. It is a subject of great trouble that the cesspools attached to these and other buildings are covered over with earth, so that their contents cannot be easily examined. They should, in all cases, be covered with a flagstone that could be readily removed.

The accommodations for the children that attend the public schools are far from adequate to the needs of the district. Many of the schools are overcrowded, especially in the primary classes. Some of the buildings are not in anywise adapted for such purposes. It is therefore very gratifying to know that the Board of Education contemplate the erection of one or more new edifices, and the enlargement of others, which will, in a great measure, afford the relief so greatly needed.

Many vacant and sunken lots have been drained or filled during the past year. The sanitary condition of certain localities has thereby been greatly improved, and many long-continued nuisances abated. Much, however, still needs to be done in this respect. The difficulty of ascertaining the name and address of non-resident owners has been a serious hindrance in this direction. It seems to me that the Board should have greater authority to relieve and abate nuisances of this character, and that the expense attendant thereupon should be a lien upon the property thus benefited, prior to all other claims.

During the time to which this report refers there has been quite a number of cases of variola and varioloid reported in my district. About one-half the number it has been necessary to remove to Riverside Hospital. In addition to the vaccinations required in the localities where such diseases occurred, I have visited nearly all the tenement houses in the Twenty-third Ward, and vaccinated all who desired it. I have also visited all the public schools in the

Twenty-third and Twenty-fourth Wards for the purpose of vaccinating all the school children whose parents would consent to have the operation performed. As the result of these precautions it has been rather the exception that a second case of the disease has occurred in any locality.

The following is a summary of the inspections, re-inspections, and other work performed by me since my last report :

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	902	Streets and street-gutters	106
Private dwellings	2,133	Public drains	64
Other dwellings	125	Slaughter-houses	26
Cellars and basements	49	Fat-melting establishments	13
Stables	322	Public school buildings	31
Privies	726	Other public buildings	6
Sunken and vacant lots	462		
		Total	4,965

COMPLAINTS.

Tenement houses	107	Privies	94
Private dwellings	177	Public school building	1
Streets and roads	12	Sunken and vacant lots	106
Street-gutters and sidewalks	27	Special reports	27
Drains	18		
Stables	42	Total	509

CONTAGIOUS DISEASES.

Variola	51	Typhoid fever	9
Diphtheria	69	Varicella	5

Primary vaccinations	266
Re-vaccinations	2,246
Total vaccinations	2,512

Respectfully submitted,

JOHN E. COMFORT, M. D.,
Assistant Sanitary Inspector.

NEW YORK, May 1, 1875.

DR. WALTER DE F. DAY,
Sanitary Superintendent, etc.:

SIR—I have the honor to submit the following report of the sanitary condition of my district, and of the work performed by me therein from May 1, 1874, to January 31, 1875 :

Since my last report I have made a "house-to-house" inspection of the entire district twice, and have found a very decided improvement in its sanitary condition. While I found cause for complaint in thirty (30) per cent. of the houses at my first visit, in the last the complaints were only about ten (10) per cent. These complaints embraced all the nuisances usually found in a crowded tenement population, in part the fault of the tenants, such as dirty halls and rooms, yards, cellars and areas filled with rubbish, dirt, and garbage, etc., and others belonging to the landlord, as leaky roofs, untrapped and unventilated waste-pipes, insufficient and defective sewerage, etc. As a rule landlords or their agents, when their attention has been called to the unhealthy or unsafe condition of their houses by the Board, have been quite ready to comply with its orders for the abatement of nuisances or for making needed repairs.

Dealing, however, with so many different classes of persons who could not or would not see the utility of the changes and improvements recommended, some suits have been unavoidable, especially (in my experience) when the *landlord* has happened to be a *woman.* Composed as this district almost wholly is, of tenement houses of the poorer sort, and crowded as it is in the southern part, where front and rear houses are the rule, a perfect sanitary condition can never, and even a good sanitary condition can rarely, be attained. Rear houses, in themselves a nuisance, give rise to so many others, that a law to prevent the building of them would be a blessing to the poorer classes. Built solely to afford the greatest number of rooms in the smallest space, no attention whatever has been given to the means of lighting or ventilating them. Many of the rooms on the lower floors are never visited by sunshine, and the halls are so dark that at midday one is obliged to feel his way through them. Of this darkness dirt is a necessary attendant. Another evil connected with this plan of building is the ever-present privy vault situated in the narrow area between the two houses, and but three or four feet from the rooms in which the tenants live, eat, and in many cases, sleep. The short, wooden shaft, extending but a few feet above the roof of the privy building for a ventilator, being entirely useless for that purpose, and the sewer connection being often obstructed, they become extremely offensive and prejudicial to the health of the tenants. Still worse are those cases where, for want of room in the yard, a water-closet or school sink is placed in the cellar; these and the cellar floors around them I have invariably found in an extremely filthy condition, due partly to the darkness of the place, and partly to the negligence or laziness of those who use them. It being impracticable to remove them, I have had them frequently cleaned, but with only temporary benefit. When the vault is situated in the yard, I have recommended the metallic ventilating shaft in many cases, with the result of greatly improving the condition of the premises.

Drainage and Sewerage.—There has been a great improvement in the drainage and sewerage of the houses since my last report. At my first visit a stench-trap was rarely found; the pipes in many instances were leaky, with open joints, discharging waste water into an open drain, or one but loosely covered with bricks or boards in the cellar, from which pipes and drains sewer gases had free access to the houses. These defects have, as far as possible, been remedied by providing traps directly beneath each sink, stopping leaks and open joints, substituting an earthen-pipe sewer for the drain, and ventilating the pipe by extending it above the roof of the building.

Cellars and Basements.—I have found very few cellars used as sleeping rooms, and these have been vacated by order of the Board. The houses on the river side of the district being built upon made ground, the cellars are rendered so damp by tidal waters as to be unfit for use, and not only useless, but sources of disease, the houses being also damp. This might, to a certain extent, be prevented by cementing the walls and bottom of the cellar, and providing a valve in the sewer.

Yards and Areas.—The small spaces usually found between rear houses on adjoining lots have been the cause of many complaints on account of the accumulation of rubbish and garbage in them. These have been cleaned, and a recurrence of the nuisance prevented by placing a wire-netting before the windows opening thereon. Many of the yards were unpaved and ungraded, and used as dumping grounds by the tenants. These, in most cases, have been graded and paved, and connected with the street sewer.

Fowls.—The keeping of fowls in the yards and cellars, and, in many instances, in the rooms, is a nuisance of considerable magnitude, and one difficult to deal with; for, though often abated, it is quickly renewed. The usual excuse for keeping them is, "just a few for the holidays." Judging from that, I imagine that the inhabitants of this district have three hundred and sixty-five holidays every year. I have recommended permits only when they were kept in coops in the yards and kept clean.

Sidewalks and Streets.—The sidewalks are generally in a good condition. The flagging or bricks of many of them have been relaid, the curb-stones reset, and the gutter-stones properly graded, so as to offer no obstruction to the flow of water. The streets are in a worse condition than last year, nothing having been done to improve them. Those paved with cobble-stones are simply disgraceful. They have been cleaned, on an average, about once in two weeks; but from the nature of the surface, and the infirmities of the sweepers, the work is done in a very superficial manner, and a day or two suffices to render them as bad as ever. A sewer has been provided in Lewis street, and some of the houses connected with it, making a marked improvement in their sanitary condition.

Old Rags and Bones.—There are several places in the district where quite a large business is done in cleaning old rags and bones gathered from streets and ash barrels. This has caused a good deal of complaint among neighboring tenants. Though in most of these places the persons engaged in the business use every care to conduct it in a cleanly manner, yet, from the nature of the material, it gives rise to the most disgusting and offensive odors. I have made complaints of several of these places, and some of them have been removed.

Contagious Diseases.—Small-pox has been quite prevalent in this district since my last report. It has been scattered over the district, not more than one or two cases occurring in the same house, except in a few instances, where the first cases were concealed until revealed by the death of one of the patients. I have found it impracticable to isolate the patients, and, with few exceptions, have had them sent to the hospital. Previous to the appointment of the Vaccinating Corps, I offered vaccination to all the inmates of houses having this disease; but few, however, availed themselves of it.

I have seen but few cases of diphtheria, and have been unable to obtain any facts of interest relating to its cause, progress, etc. I found it in houses perfectly clean, rooms large and thoroughly ventilated, and where the occupants were able to provide everything necessary to comfort and health, as well as in the dark, damp, rear tenements, where fresh, pure air is never breathed, where cleanliness is never thought of, and where wholesome food is seldom tasted.

The following is a statement of the work performed by me during the nine months embraced in this report :

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	4,136	Streets	8
Other dwellings	829	Sidewalks	88
Other buildings	24	Leaders	1
Privies	276	Factories	23
Yards	205	Sewer	1
Cellars	148		
Stables	23	Total	5,762

COMPLAINTS.

Tenement houses	635	Factories	2
Other dwellings	83	Stables	7
Other buildings	2	Streets	13
Privies	147	Sidewalks	15
Yards	84		
Cellars	51	Total	1,039

CONTAGIOUS DISEASES VISITED.

Small-pox	87
Diphtheria	14
* Measles	2
Total	103
Vaccinations	16
Re-vaccinations	36
Total	52

Respectfully submitted,

EUGENE B. SANBORN, M. D.,
Assistant Sanitary Inspector.

NEW YORK, May 1, 1875.

DR. WALTER DE F. DAY, *Sanitary Superintendent, etc. :*

SIR—I have the honor to make the following report of work done by me in the service of the Board of Health from May 1, 1874, to February 1, 1875, at which date my connection with the Board ceased. My work has been performed principally in that portion of the city known as the Seventh Ward, and bounded by Grand street on the north, the East river on the east, on the south by Catharine street, and on the west by Division street :

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* Reported small-pox.

Pavement of Streets. General Cleanliness.—The prevalence of the old-fashioned cobble-stone pavements in the district increases greatly the difficulty of keeping the streets clean. But, as has frequently been shown, the existence of a cobble-stone pavement is not a *sufficient* excuse for a dirty street, for it is possible to keep even this clean. The true reasons for the existence of filthy streets, gutters, and sidewalks, are to be sought for rather in the moral characteristics of the people than elsewhere. The population of the Seventh Ward includes a large number whose regard for cleanliness and general sanitary decency is at the vanishing point. These people, who are often far from belonging to the criminal class, seem to have not the faintest appreciation of the desirability of physical purity and sanitary wholesomeness, so that no spur is too sharp to stimulate them to the most general observance of sanitary propriety. Were it not out of place to do so, one would feel inclined to designate by race, as he easily might, the people who are most censurable in this respect.

Privies and Water-closets.—Nothing, in my opinion, is more needed in this district than the general adoption of some improved form of privy.

The present sewer-connected privy in general use is ingeniously bad. Privy gas and sewer gas are conducted into the yards and discharged in close proximity oftentimes to the windows of dwelling and sleeping rooms, and the present system of privy ventilation is, in my opinion, powerless to prevent this poisoning of the atmosphere of dwellings.

Changes. New Buildings.—During the period of my service many so-called improvements have been carried on and completed in this district. Lots formerly vacant have been built upon, and many dilapidated old structures, once used as tenement and dwelling houses, have been destroyed, and in their place seemingly fair buildings have been erected. But to my thinking these buildings do not often constitute improvements.

The pretentious high stoop brown-stone front tenement house may be fair to the eye, but in reality it is full of all unsoundness. The public health gains nothing by the erection of such buildings.

During the prevalence of diphtheria last autumn and winter, in accordance with the instructions of the Board, I devoted considerable time to investigating the fatal cases of this disease that were reported to the Board.

The following is a tabular statement of the inspections and re-inspections made by me during the period embraced by this report :

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	1,254	Privies and water-closets	121
Other buildings	1,001	Waste-pipes and drains	14
Dumps and piers	5	Ash and garbage boxes	97
Private dwellings	69	Yards and areas	24
Streets, gutters, and sidewalks	101	Markets and market-places	5
Stores and warehouses	48	Factories and workshops	67
Fat-rendering establishments	6	Cellars and basements	85
Stables	80		
Sunken and vacant lots	4	Total	2,981

Respectfully submitted,

NATHANIEL B. EMERSON, M. D.,
Assistant Sanitary Inspector.

Walter De F. Day, M. D.,
Sanitary Superintendent:

Sir—I have the honor to submit the following report of labor performed by me in the Health Department from May, 1874, to the end of January, 1875.

My district is bounded on the north by Rivington street, on the south by Division and Grand streets, on the east by the East river, on the west by the Bowery, and is occupied chiefly by tenement houses, though there are quite a number of private dwellings, and of small two and three story houses, containing two or three families.

The tenement dwellings are of the better class, and are inhabited by a population representing the various nationalities, in which the German predominate. The general condition of these dwellings is very good. Some exceptions are to be met with in Forsyth, Ludlow, Essex, and Hester streets, where there is more crowding, and where the population is careless and of filthy habits. Quite a number of the dwellings here are without housekeepers, and as they are occupied by ignorant tenants, their condition has been sometimes deplorable. Many complaints were made against such dwellings, and it was really gratifying to see with what readiness most of the orders of the Board were complied with.

In nearly all classes of tenement dwellings, my attention was frequently called to the condition of the privy vaults or water-closets. As at present constructed, having sewer connections and a proper flushing apparatus, they are still a subject of complaint, and are almost always offensive. A vault in the yard, properly ventilated, and *without sewer connections*, seems to me the best substitute for the privy vault now in existence. It would not be open to the objections frequently urged against the latter, namely, frequent obstruction of sewer-pipe and disarrangement of the flushing apparatus. If of sufficient capacity, it would not require to be emptied oftener than twice every year, and when properly disinfected, from time to time, it would never be offensive.

The *private dwellings* I found in good condition, being occupied by people in fair circumstances, and who took pride in keeping their premises clean and orderly.

Many *cellars* and *basements* were visited and closely inspected. I found eighty or ninety uninhabitable, and orders for vacation were issued against them. All were vacated, with one or two exceptions, and in these such changes and alterations were made as rendered them inhabitable.

Other dwellings are to be seen along north side Division, north side Grand within a few blocks of the ferry, and a few of the streets running near and parallel to East river. They are nothing but tumble-down structures, made of wood, one or two stories in height, and always present a filthy appearance. They are inhabited by the poorest classes, and are always a subject of complaint, but now they are fast disappearing and giving place to good tenement dwellings.

The *streets* in this district have been kept in a comparatively clean condition; even those paved with cobble-stones presented a fair appearance.

The *factories and workshops* were closely inspected; and, under existing circumstances, their condition is satisfactory.

Stables owned by private parties were generally clean and orderly, but those controlled by joint ownership were usually filthy.

A few *coal yards*, to which I have frequently called attention, are still a source of complaint from those compelled to inhale their dust. The only remedy for such a nuisance is a properly constructed roof, to prevent the escape of the coal dust.

Small-pox and diphtheria have prevailed to an alarming extent in my district, and were evenly distributed through it. Of the former disease only two were isolated, while the remainder were removed to hospital.

The latter disease occurred in places where some gross sanitary defect was apparent, either in the obstruction of soil-pipe, the filthiness of cellar and yard, or improper drainage.

The disease came on with fearful malignity, and death came on generally at the end of the sixth or seventh day.

The following is a tabulated statement of inspections and re-inspections :

INSPECTIONS AND RE-INSPECTIONS.

Tenement dwellings	3,201	Factories	22
Private dwellings	172	Dyeing establishments	4
Other dwellings	122	Work shops	21
Stores and warehouses	164	Cellars and basements	92
Public buildings	21	Sunken and vacant lots	12
Privies	68	Culverts	6
Coal yards	18	Streets and alley-ways	25
Stables	64	Total	4,012

Complaints 744

CONTAGIOUS DISEASES.

Small-pox	60	Diphtheria	21
Scarlet fever	1	Total	132

Vaccinations 26

Respectfully submitted,

ALEXANDER STRONG, M. D.,
Assistant Sanitary Inspector.

NEW YORK, May 1, 1875.

DR. WALTER DE F. DAY, *Sanitary Superintendent:*

SIR—I have the honor to submit the following report, containing the results of labor in my sanitary district for the time included between July 1, 1874, and February 1, 1875, a period of six months :

This district is bounded north by One Hundred and Tenth street, south by Fifty-ninth street, east by Sixth avenue, and west by the North river, comprising part of the Twelfth and Twenty-second Wards.

The general facts with reference to topography, drainage, sewerage, etc., have been so fully dilated upon in previous reports, that it is not necessary here to repeat them.

The general condition of the tenement houses is good, and they were kept in a fair state of cleanliness.

There are a great many shanties in this district, but they are in better sanitary condition now than formerly, when pigs, cows, chickens, etc., were allowed to be kept on the premises.

The following is a summary of the duties performed by me for the time stated:

INSPECTIONS AND RE-INSPECTIONS.

Tenement houses	836	Vacant lots	119
Other dwellings (shanties)	1,714	Breweries	9
Private dwellings	157	Factories	15
Stables	230	Total	3,080

COMPLAINTS FORWARDED TO THE BOARD FOR ACTION.

Tenement houses	64	Stables	9
Other dwellings	67	Vacant lots	5
Private dwellings	20	Total	165

CASES OF CONTAGIOUS DISEASES VISITED AND REPORTED.

Small-pox	17
Diphtheria	12
Total	29

Very respectfully,

JAMES R. HEALEY, M.D.,
Assistant Sanitary Inspector.

NEW YORK, February 1, 1875.

DR. WALTER DE F. DAY, *Sanitary Superintendent:*

SIR—I would herewith respectfully submit a report of the work performed by me in the sanitary district bounded by One Hundred and Twenty-fifth street on the north, Harlem river on the east, One Hundred and Tenth street on the south, and Hudson river on the west, from the 1st of May, 1874, until the 1st of February, 1875:

COMPLAINTS.	INSPECTIONS.	
106	Tenements	2,627
103	Private dwellings	310
26	Vacant lots	68
19	Other dwellings	447
16	Stables	51
6	Sidewalks	89
	Shanties	11
	Work shops	1
2	Yards	1
	Fat rendering	5
7	Stores	18
21	Privies	17
1	Dumping grounds	1
3	Factories	2
	Other nuisances	4
3	Cellars and basements	
3	Streets	
1	Churches	
377		3,652

Houses visited on vaccinating duty	74

CONTAGIOUS DISEASES.

Small-pox	150
Diphtheria	20
	170

Vaccinated	30
Re-vaccinated	42
Reports	4

GEO. B. FOWLER, M. D.,
Assistant Sanitary Inspector.

REPORT OF H. ENDEMANN, PH. D., IN CHARGE OF DISINFECTING CORPS.

NEW YORK, January 1, 1876.

WALTER DE F. DAY, M. D., *Sanitary Superintendent:*

SIR—The work which has been performed by the Disinfecting Corps during the past twenty months, may be classed as follows:

1. Disinfection of houses infected with contagious diseases.

2. Disinfection of streets and street gutters.

3. Disinfection of privies, yards and cellars.

4. Distribution of "Vaccination Notices."

5. Special disinfections of premises, vacant lots, stagnant waters, and larger areas of ground.

While the work under the first head extended over the whole period, the work under the second to fifth heads inclusive was mainly confined to the summer months.

1. *Disinfection of Houses Infected with Contagious Diseases.*—In this branch of practical hygiene improvements were hardly called for, since the uniformly favorable results obtained by our practical method of disinfection insured perfect safety.

Some theoretical examinations, however, suggested to me the necessity of using, for the disinfection of clothing, a stronger solution of carbolic acid than we had hitherto employed. The amount of carbolic acid used for this purpose has, consequently, been doubled.

The disinfection of privies in infected houses was discontinued, and performed only in exceptional cases, owing to the fact that the wagons formerly used for carrying disinfectants were required for the removal of small-pox patients to the hospital. The disinfection was confined therefore mainly to the infected rooms and their surroundings.

To increase our means for taking patients to the hospital, a coupé was added to the ambulances already in use for this purpose.

The following tabulated statement gives the work performed by the Disinfecting Corps in houses infected by contagious diseases, from May 1, 1874, to December 31, 1875:

Date.	Number of Visits.	Thorough Disinfection and Fumigation.	Partial Disinfection.	Patients removed to the Hospital.	Dead Bodies removed to the Morgue.	Nature of Infection.				
						Small-pox.	Scarlatina.	Diphtheria.	Typhus and Typhoid.	Other Diseases.
1874.										
May 1 and 2.........	18	3	15	1	..	3	7	7	..	1
Week ending May 9	73	22	35	18	1	24	18	11	2	2
" " 16	108	35	59	20	2	29	29	15	5	6
" " 23	98	22	61	14	..	30	40	16	4	1
" " 30	85	21	44	8	1	27	31	10	..	..
" June 6	70	30	32	21	..	34	20	5	1	..
" " 13	78	25	39	21	4	28	19	16	1	..
" " 20	73	13	40	8	1	14	14	21	3	1
" " 27	58	16	35	17	2	24	14	10	2	1
" July 4	49	11	23	7	..	12	12	6	2	3
" " 11	54	18	27	10	2	25	6	8	5	1
" " 18	63	16	36	8	..	18	11	21	2	..
" " 25	57	23	21	20	..	24	3	7	1	9
" Aug. 1	46	11	30	5	2	11	7	15	6	2
" " 8	70	36	21	26	1	38	11	7	..	1
" " 15	64	16	28	15	..	19	6	15	1	3
" " 22	68	19	33	10	1	21	7	12	9	4
" " 29	46	21	15	17	1	21	6	3	3	3
" Sept. 5	75	23	38	17	2	24	15	12	9	2
" " 12	46	12	26	6	1	14	10	5	6	3
" " 19	61	17	29	14	..	20	11	11	5	5
" " 26	63	31	17	21	1	37	6	5	3	1
" Oct. 3	74	17	38	14	..	30	15	10	5	..
" " 10	59	19	30	13	1	26	5	16	2	..
" " 17	80	31	45	21	3	38	8	25	4	1
" " 24	69	27	39	17	1	29	9	25	2	1
" " 31	81	25	47	13	..	27	9	30	5	1
" Nov. 7	87	34	46	23	..	42	8	32	6	..
" " 14	89	43	40	33	2	44	9	22	7	1
" " 21	99	49	40	27	1	51	9	25	1	3
" " 28	76	41	30	30	2	49	2	14	4	2
" Dec. 5	86	59	27	33	..	77	..	7	2	..
" " 12	89	51	20	20	6	59	1	8	2	1
" " 19	129	61	58	38	..	76	2	37	1	3
" " 26	114	77	27	43	6	87	3	14	..	..

Date.	Number of Visits.	Thorough Disinfection and Fumigation.	Partial Disinfection.	Patients removed to the Hospital.	Dead Bodies removed to the Morgue.	Nature of Infection.				
						Small-pox.	Scarlatina.	Diphtheria.	Typhus and Typhoid.	Other Diseases.
1875.										
Week ending Jan. 2	105	70	24	30	2	76	..	18	..	..
“ “ 9	152	87	43	46	2	104	2	23	..	..
“ “ 16	104	70	27	45	5	94	..	3	..	..
“ “ 23	89	72	12	49	4	83	..	1	..	..
“ “ 30	100	81	16	52	5	94	..	1	..	2
“ Feb. 6	88	70	13	51	6	83	..	..	..	..
“ “ 13	81	56	15	38	2	70	..	..	..	1
“ “ 20	81	58	12	49	5	69	1	..	..	..
“ “ 27	65	52	5	39	2	56	..	1	..	..
“ March 6	79	56	17	34	1	69	1	1	..	2
“ “ 13	89	66	17	45	2	82	..	..	..	1
“ “ 20	61	47	7	29	3	53	1	..	..	..
“ “ 27	68	48	10	30	3	58	..	..	..	..
“ April 3	63	48	5	39	..	53	..	..	..	..
“ “ 10	69	54	5	43	4	59	..	..	..	..
“ “ 17	60	40	11	35	2	49	..	..	1	1
“ “ 24	87	67	6	53	2	72	..	1	..	..
April 25 to April 30	78	61	6	55	2	66	..	1	..	..
May 1............	17	14	2	10	1	16	..	..	..	..
Week ending May 8	101	67	17	62	2	83	1	..	..	..
“ “ 15	102	81	14	65	5	94	..	..	..	1
“ “ 22	102	85	9	60	5	94	..	..	..	..
“ “ 29	114	95	7	64	1	99	2	..	1	..
“ June 5	128	98	16	87	2	112	2	..	..	..
“ “ 12	108	88	9	62	6	97	..	..	..	..
“ “ 19	139	95	24	88	4	111	2	6	..	..
“ “ 26	112	79	28	68	3	107	..	..	..	..
“ July 3	100	74	13	49	5	87	..	..	..	..
“ “ 10	114	76	16	58	5	92	..	..	..	..
“ “ 17	117	82	16	61	4	98	..	..	..	..
“ “ 24	99	72	7	49	2	78	..	..	..	1
“ “ 31	75	57	7	48	..	64	..	..	..	..
“ Aug. 7	54	46	4	30	3	49	..	..	1	..
“ “ 14	35	30	1	23	..	31	..	..	..	..
“ “ 21	40	33	5	23	1	38	..	..	..	..

DATE.	Number of Visits.	Thorough Disinfection and Fumigation.	Partial Disinfection.	Patients removed to the Hospital.	Dead Bodies removed to the Morgue.	NATURE OF INFECTION.				
						Small-pox.	Scarlatina.	Diphtheria.	Typhus and Typhoid.	Other Diseases.
1875.										
Week ending Aug. 28	27	22	4	14	3	26	..	..	..	..
" Sept. 4	45	12	18	7	1	13	..	12	1	4
" " 11	35	32	1	30	..	33	..	..	..	..
" " 18	42	20	15	19	..	22	..	10	2	1
" " 25	30	11	6	9	1	12	..	4	1	.
" Oct. 2	50	27	3	24	..	28	..	..	2	..
" " 9	47	25	10	20	..	26	..	6	3	..
" " 16	34	16	11	9	1	23	..	3	1	..
" " 23	30	27	2	18	..	28	..	..	1	..
" " 30	42	31	..	24	..	31	..	..	..	..
" Nov. 6	31	27	1	23	..	27	..	..	..	1
" " 13	39	36	3	32	..	39	..	..	..	..
" " 20	33	26	1	23	..	27	..	..	..	..
" " 27	34	29	3	18	2	32	..	..	..	..
" Dec. 4	46	36	6	24	1	36	1	4	..	1
" " 11	44	31	8	26	1	37	1	1	..	..
" " 18	61	34	15	21	1	48	1	..	..	..
" " 25	53	46	..	36	2	45	..	1	..	..
Dec. 26 to Dec. 31	57	42	12	33	3	53	1	..	..	..
Total............	6,411	3,680	1,756	2,708	161	4,358	399	600	125	78

The above tabulated statement shows that 5,436 (3680 + 1756) premises infected with contagious diseases were disinfected, while 6,411 orders to disinfect were given.

This apparent discrepancy is explained by the fact that in many cases the inmates had used disinfectants already; in other cases, however, they absolutely refused the application of disinfectants, and in others, again, the addresses of the sick were erroneously reported.

To increase the efficiency of the Disinfecting Corps, its members were required to perform night duty for the purpose of attending to cases, which required immediate attention, and which were reported after office hours.

2. *Disinfection of Streets and Street Gutters.*—During the year 1874 the disinfection of street gutters was commenced on June 1, and was limited, until June 15, to the disinfection of streets and gutters in the Fourth and Sixth Wards. The general disinfection was commenced June 15, and was performed in all the streets requiring it situated below Fifty-ninth street. The down town depot was located, during the month of June, at the northeast corner of Elm and Centre streets, and from July 1 to the end of the season at 146 Hester street.

The two uptown depots were located at 436 West Thirty-fifth street and "Scavengers' alley," in East Twelfth street.

Two three hundred-gallon tanks, on trucks, were used in performing the uptown work, while for the down-town work two one hundred-gallon barrel-carts were employed.

The solution for the disinfection of street gutters was composed as follows:

42 gallons zinc iron liquor (35° B).
4 " carbolic acid.
254 " water.

During the latter part of the season of 1874, when the strength of the zinc iron liquor was reduced to 25° B., sixty-five gallons of zinc iron liquor were used in the place of the forty-two gallons, as given above.

During the summer of the year 1875 the depots were situated at 146 Hester street, 435 West Thirty-eighth street, and Scavengers' alley, in East Twelfth street.

During this season the work was commenced on May 22, and discontinued on August 2.

The average cost of disinfecting one mile of street gutter was:

$3.15 during the year 1874.
$2.85 during the year 1875.

DISINFECTION OF STREET GUTTERS, JUNE 1 TO SEPTEMBER 30, 1874.

Week Ending—	Miles of Street Gutters Disinfected.	Cost of Disinfectants.	Cost of Labor.	Hire of Horses.	Total Cost per Week.
June 6	11¼	$42 08	$13 75	.....	$55 83
" 20	173	383 40	154 75	$58 00	596 15
" 27	176	267 40	141 75	50 00	459 15
July 4	165	239 82	173 75	50 50	464 07
" 11	199½	282 55	149 23	61 24	493 02
" 18	202	270 00	149 50	62 00	483 50
" 25	111	197 70	98 50	38 37	334 57
August 1	143	220 20	78 75	45 00	343 95
" 8	156	318 00	137 75	55 25	511 00
" 15	233½	486 40	182 75	71 75	740 90
" 22	224	466 37	179 00	68 50	713 87
" 29	190½	460 10	185 50	71 25	716 85
September 5	126	316 52	126 00	42 00	484 52
" 12	142¾	305 65	126 00	42 00	483 65
" 19	107½	239 65	104 75	32 00	376 30
" 26	142½	324 25	126 00	42 00	492 25
" 30	66	143 70	102 00	21 00	266 70
Total for season	2,567¾	$4,965 80	$2,229 73	$811 36	$8,006 89

DISINFECTION OF STREET GUTTERS, MAY 22 TO AUGUST 4, 1875.

WEEK ENDING—	MILES OF STREET GUTTERS DISINFECTED.	COST OF DISINFECTANTS.	COST OF LABOR.	HIRE OF HORSES.	TOTAL COST PER WEEK.
May 22	20⅓	$41 20	$22 11	$5 62	$78 93
" 29	150⅙	271 39	201 62	33 75	506 76
June 5	148½	311 35	232 75	35 25	579 35
" 12	82¾	198 51	126 47	22 50	347 48
" 19	94¼	157 57	119 77	21 75	299 09
" 26	192¼	297 19	192 25	33 75	523 19
July 3	208½	267 82	208 87	34 12	510 81
" 10	153¼	194 87	174 62	24 00	393 49
" 17	178½	243 58	207 23	31 50	482 31
" 24	197	261 36	204 00	36 00	501 36
" 31	175	198 46	176 36	29 62	404 44
August 7	45	61 13	45 75	8 25	115 13
Total for season	1,645½	$2,504 43	$1,921 80	$316 11	$4,742 34

3. *Disinfection of Privies, Yards and Cellars.*—The disinfectants which were used for this kind of work were zinc iron liquor, dead oil, and, during the latter part of the season of 1874, some carbolic acid.

The work was, in 1874, commenced June 18, with one truck, but it was greatly extended by the discontinuance of some of the street-work, and by applying the apparatus thus released, for the same purpose, from September 1 to September 30. The building of a new three hundred-gallon tank truck, at the end of the year 1874, allowed us to commence this work during the summer of 1875, at once on the same extensive scale, as we had been enabled to conduct it during September, 1874, without curtailing our work on the streets.

Nearly all the privy vaults connected with the street sewers proved to be in a condition needing disinfectants almost as badly as those where such connection did not exist.

The following tabulated statements give the details of the work as performed during the summers of the years 1874 and 1875:

DISINFECTION OF PRIVIES, YARDS, AND CELLARS, DURING THE SUMMER OF THE YEAR 1874.

Week Ending	Disinfected.			Disinfectants Used—Gallons.			Cost of Disinfectants.	Cost of Labor, including Horsehire, etc.	Total Cost.
	Privies.	Yards.	Cellars.	Carbolic Acid.	Dead Oil.	Zinc Iron Liquor.			
June 20.......	466	221	105	..	129	233	$36 20	$30 00	$66 20
" 27.......	457	237	105	..	198	342½	54 05	54 00	108 05
July 4.......	514	245	126	..	199	366½	56 55	44 72	101 27
" 11.......	627	219	60	..	224	476	70 00	48 00	118 00
" 18.......	594	95	31	..	180	352½	53 25	39 00	92 26
" 25.......	457	70	36	..	180	341½	52 15	23 75	75 90
Aug. 1.......	272	44	24	..	93	232½	32 55	17 00	49 55
" 8.......	657	79	43	..	267	538	80 50	48 00	128 50
" 15.......	727	137	83	..	289	662	95 10	52 00	147 10
" 22.......	682	153	106	..	270	624	89 40	48 00	137 20
" 29.......	689	149	139	..	278	625	90 30	48 00	138 30
Sept. 5.......	3,264	304	153	46	1,115	2,204	381 90	189 00	570 90
" 12.......	3,613	305	148	36	1,032	2,046	352 80	181 00	533 80
" 19.......	2,811	185	73	28	917	1,574	284 10	128 75	412 85
" 26.......	3,994	209	89	36	1,157	2,322	392 90	194 00	586 90
" 30.......	1,996	125	41	12	578	1,248	197 60	95 12	292 72
Totals....	21,820	2,777	1,362	158	7,106	14,187½	$2,319 35	$1,240 24	$3,559 59

DISINFECTION OF PRIVIES, YARDS, AND CELLARS, DURING THE SUMMER OF THE YEAR 1875.

Week Ending	Disinfected.			Disinfectants Used—Gallons.			Cost of Disinfectants.	Cost of Labor, including Horsehire, etc.	Total Cost.
				Iron Liquor.					
	Privies.	Yards.	Cellars.	25° B.	34° B.	Dead Oil.			
May 8.......	2,066	78	49	811	..	376	$118 70	$119 63	$238 33
" 15.......	3,238	67	27	1,323	..	583	177 75	164 88	342 63
" 22.......	4,088	42	30	1,484	..	710	166 78	186 50	353 28
" 29.......	3,169	55	30	1,425	..	632	150 86	207 50	358 36
June 5.......	3,234	102	41	1,583	..	592	156 56	203 00	359 56
" 12.......	2,262	137	51	1,116	..	577	121 38	124 00	245 38
" 19.......	1,327	106	57	727	..	234	77 90	69 50	147 40
" 26.......	2,894	282	163	1,743	160	799	200 43	180 99	381 42
July 3.......	3,237	196	209	1,838	120	770	199 03	198 00	397 03
" 10.......	1,347	44	31	587	..	365	70 19	188 75	258 94
" 17.......	1,884	102	36	1,011	..	529	104 68	189 00	293 68
" 24.......	1,952	228	98	1,117	..	630	131 59	189 00	320 59
" 31.......	1,040	314	152	685	..	282	74 88	162 50	237 38
Aug. 7.......	2,831	501	205	1,314	405	881	172 37	172 12	344 49
" 14.......	2,673	476	192	1,694	45	859	176 43	194 46	370 89
" 21.......	2,519	562	220	1,617	..	784	162 68	174 50	337 18
" 28.......	2,464	364	142	1,517	..	742	152 50	164 75	317 25
Sept. 4.......	2,877	626	338	1,832	..	863	181 87	196 25	378 12
" 11.......	2,603	879	268	1,748	..	719	174 20	198 00	372 20
" 18.......	2,945	746	376	1,635	..	730	179 32	198 00	377 32
Totals....	50,650	5,907	2,685	26,807	730	12,757	$2,950 10	$3,481 33	$6,431 43

4. *Distribution of Vaccination Notices.*—The forces detailed for the disinfection of privies, etc., and street gutters were partly relieved from these duties during the month of July, 1875, and employed for the distribution of vaccination notices. The amounts spent for labor are included in the accounts for the disinfection of privies, yards, and cellars, and those for the disinfection of street gutters.

$330.75 were expended for the labor of distributing "vaccination notices." This amount is included in the $3,481.33 mentioned above as expended for labor in the disinfection of privies, etc. The sum of $79.47 was also expended for the same purpose, and is included in the $1,921.80 mentioned as having been paid for labor in disinfecting street gutters.

This work was performed during the month of July, 1875, as follows:

WEEK ENDING—	Number of Vaccination Notices Distributed.	Cost of Labor.
July 10, 1875	7,300	$117 75
" 17, "	6,660	85 00
" 24, "	6,460	79 73
" 31, "	10,380	127 74
Totals	30,800	$410 22

Included in labor account for disinfection of privies, etc.	$330 75
" " " street gutters	79 47
Total	$410 22

5. *Special Disinfection of Premises, Vacant Lots, Stagnant Water, etc.*—During the summer of 1874 some special work was performed by the gangs of laborers employed for the disinfection of streets. The work was aside from the regular routine business, generally far up town, and undertaken in consequence of special complaints regarding the condition of certain localities.

SPECIAL DISINFECTION DURING THE SUMMER OF 1874.

WEEK ENDING—	Miles of Street Gutters.	Privies.	Yards and Markets.	Cellars and Lots.	Extra.	Carbolic Acid.	Dead Oil.	Solution.	Cost of Disinfectants.	Cost of Labor.
July 11	6	8	6	..	Lyon Brewery, Mill Brook, Vacant Lots.	6	..	58	$13 30	$15 50
" 18	8	86	28	3		14	..	167	34 20	22 99
" 25	..	..	4	..		4	..	45	9 50	11 50
Aug. 1	..	..	4	..		4	..	36	8 60	6 50
" 8	..	..	..	4		..	261	560	82 10	20 00
" 15	6	..	4	4		24	..	270	57 00	28 50
" 22	4	..	4	6		10	..	105	23 00	22 25
" 29	..	6	8	..		12	..	124	27 40	19 00
Totals	24	100	58	17	....	74	261	1,365	$255 10	$146 24

Disinfection of Street Sweepings and Disinfection of the Harlem Flats during the Summer of 1875.—The condition of the street filth gathered during the spring of 1875 and used for the purpose of filling in sunken lots on the Harlem Flats had excited grave apprehensions on the part of the inhabitants of the neighborhood. It was therefore ordered that all the sweepings unloaded at the foot of Ninety-fifth street, East river, and to be used for this purpose, be disinfected. The disinfectants were furnished by the contractors, who had undertaken the work, and the disinfection was performed by two men under the instructions of a foreman, all employees of the Health Department.

They disinfected, from May 26 to May 31, in all twenty-eight scow loads of street sweepings, using forty-five pounds of quick lime and 370 gallons of dead oil at a cost to the Health Department of $56 for labor. This amount is included in the $3,481.33 stated above as having been expended for the disinfection of privies, etc. From the same is likewise the sum of $16 to be deducted, which represents the wages of the men while they were employed for the inspection of city dumps.

Shortly after the first-mentioned work had been commenced, complaints reached the Department regarding the foul effluvia of the scows which receive the street sweepings and garbage, and which are stationed on the water edge in various parts of the city. In consequence thereof the police authorities were asked to use disinfectants, and experienced hands of the Health Department were sent for the instruction of the police subordinates.

The whole area known as the Harlem Flats is ground made by filling in with street sweepings, ashes, etc., and covered in some instances slightly with good earth. The underlying stratum is a salt marsh, which, before the filling in was commenced, emitted a far more unpleasant odor than was discernible during the spring of 1875.

On June 9th I was notified that the areas bounded by—

1. East river, East Ninety-second street, Third avenue, and East One Hundred and Eighth street.

2. East One Hundred and Sixth street, Lexington avenue, East One Hundred and Eighth street, and Third avenue.

—were to be disinfected.

The work was commenced June 10, and finished June 16, at an expense of $1,853.73.

Labor, including horse hire	$634 55
25 barrels of sawdust, 20 cents per barrel	5 00
8,986 gallons of dead oil, 10 cents per gallon	898 60
4,725 " iron liquor, 6 3/20 cents per gallon	290 58
20 " carbolic acid, $1.25 "	25 00
Total	$1,853 73

The effect of the disinfectants, though perceptible, was not appreciated until after the first rain, which helped to further distribute them and soak them into the ground where they could reach the source of the evil.

Notes on Disinfection and Disinfectants.—The decomposition of organic substances known as putrefaction, fermentation, etc., is mainly a process depending on the presence of microscopic organisms. Granting this, we do not exclude the possibility of putrefaction without the presence of organisms.

Scientific men, defending the organized ferment theory and those defending the theory based upon the acceptance of non-organized ferments, have both tried to generalize their respective theories, so as to embrace all the facts of known fermentations.

While Liebig, an adherent of the non-organized ferment theory, has endeavored, in vain, to prove the presence of a non-organized ferment in yeast, which without the aid of the living yeast organism should be able to decompose glucose into alcohol, carbonic acid, etc., Pasteur has likewise failed to connect the presence of mycoderma aceti with the formation of vinegar from alcohol. The latest examinations have even proved that this bacterium is not the producer but rather the destructor of the acetic acid, which it requires for its existence. The presence of bacteria can therefore in no way be always connected with a ruling reaction in such a manner as if this reaction had been brought about by the presence of the organisms. Yet we know that fungi and bacteria greatly aid the processes of decomposition, which may be suspended or prevented in many cases if we prevent these organisms from gaining access to an atmosphere surrounding putrefiable substances.

I believe, therefore, that as a rule, such decompositions depend on the presence of bacteria and fungi, and that fermentation without their presence must be considered as an exception.

The influence of such processes of decomposition on the health of exposed individuals is not disputed, but another question has arisen, that is, whether the organized ferment or the product of fermentation constitute the real poison. Many consider the bacteria as quite or comparatively harmless, while they prove that the fluids on which they were grown were the real poison. But even with this proof the theory looking to the bacteria as the cause is in no way weakened. If bacteria can change otherwise harmless fluids to such a condition that they become most virulent poisons, the bacteria remain the cause and the developed poison is the consequence.

If, as some have done, we consider a non-organized ferment as the cause of disease, it becomes manifest that we consider its action as partly consisting in a reproduction of itself, an action which becomes thus very similar to the action of organized ferments, but which, at the same time, would compel us to give to these albuminoids a property which has in no case as yet been proved to exist with any of the better known substances of this class.

The theory claiming an albuminoid as the poison, claims, therefore, the existence of compounds as yet hypothetical.

If we look to the experiments which shall prove that not the bacteria but the products of their vitality are the poison, we find that a great many objections can be raised against their fitness to convince us of the independence of the albuminoid action.

Högyes of Pesth developed in Cohn's fluid bacteria, which he obtained from the stools of persons sick with cholera. He then separated the bacteria from the fluid by filtration through a clay cell, and caused, by injecting the clear fluid into the arteria jugularis of healthy animals, the same symptoms which had been produced by the fluid which contained the bacteria. This treatment might have simply produced a predisposition of the animals to take up and develop the bacteria, which are considered to be in the air and water of the affected area during the time of an epidemic.

Klebs and Tiegel filtered and washed the bacteria with water, and found that in some cases the fluids acted as poisons, not, however, in others. They proved further that the blood of healthy animals is free from bacteria.

The action of micrococci on the organism is, perhaps, most naturally considered to be one on the healthy constituents of the body, by which products of decomposition are rapidly formed, which cannot be removed by the existing channels as rapidly as they are formed. I call here attention to analyses of the blood of horses sick with the epizootic influenza (Report of the Health Department of New York, 1872).

Now, naturally these products may just as well be produced outside of the organism, which is to be infected. If then introduced in large quantities, their effect may be studied. If these experiments, however, be used to uphold the theory of non-organized ferments, it would become necessary to introduce these fluids in minimum quantities. This has never yet been done. For this reason G. Wolffhügel of Munich, says: "To obtain conclusive results, neither large doses for the infection of animals should be taken, nor should the infection be undertaken in a locality which is already infected."

That bacteria, which were separated by filtration from the fluid in which they were grown, and which had been well washed with water, proved harmless when inoculated, cannot astonish, when we know that the bacteria cannot exist and retain their activity in fluids which do not abound in nourishing salts.

There has been a good deal written about the cleansing influence of the oxygen for the destruction of the injurious substances (sewerage) in our river waters, and though there is hardly a doubt that some of the purification brought about in running streams is due to oxidation, it is my conviction that is rather due to a great dilution of the nourishing substances propagated by constant motion. But the motion alone is, according to several authors, sufficient to prevent or retard the development of bacteria. There are, therefore, two agents detrimental to the life of bacteria, which were grown in sewerage and had found their way into the streams.

Oxygen is not an enemy to bacteria, but rather perhaps to the products which owe their origin to the vital process of these bodies.

Different it is with stagnant water. Stagnant pools are constantly supplied by subterranean channels in the same degree as there is loss by evaporation, but there being no outlet other than by evaporation, the nourishing substances must accumulate and the development of the bacteria be fostered.

Our wells, which are dug to the stagnant sub-soil water, are richer in solids, and therefore, and on account of the small volume of the water, a contamination with sewage must be of more detrimental effect than if the same had passed into a running stream.

The above cited experiments prove therefore but little against the micrococcus theory. The unorganized ferment theory is, in my opinion, according to the standard of science at the present date, untenable, and as it has been proved that poisons owe their origin to the growing of bacteria in otherwise harmless fluids, why not accept these organisms at once as the cause of the disease?

Could they not, in the same manner as they change Pasteur's or Cohn's fluid, change also the healthy constituents of the living body?

Until these questions are finally settled, we must define disinfection to be a process by which the organized and non-organized ferments and products of fermentation or putrefaction are destroyed or changed into compounds in which they are no longer able to offend.

To ascertain the relative effectiveness of the substances which are used for the purpose of disinfection, many experiments have been made and many methods have been applied and recommended.

The older methods show a want of understanding, regarding the scientific principles, which must govern the experimental question to be asked. Generally no distinction is made between the antiseptic and really disinfecting properties of the respective substances.

In many cases, moreover, the composition of the masses on which the influence of the disinfectants was to be tried was so complicated that clear deductions cannot be made from the results obtained. If we note the time which elapses from the day when the disinfectants were applied to that day when living organisms make their appearance, or worse, when a complex mixture commences to emit a putrid smell, thus showing the activity of putrefaction, we do not determine the relative effectiveness of disinfectants but that of antiseptics. I will mention here one of Grace Calvert's methods for the determination of the relative effectiveness of antiseptics.

The solution taken in this case was egg-albumen diluted with water.

The antiseptics were then added and the development of organisms was noted as to the time of their first appearance. The antiseptics preventing the formation of the organisms longest being noted as the most effective.

In rendering bacteria and also infusoria lifeless two stages can be remarked. A limited quantity of disinfectants will render them motionless, in which state they do not multiply. A more abundant quantity however will produce death.

The question which now, however, arises is the following: "Do all disinfectants work under these circumstances proportionately?" This means, if I have two solutions of different disinfectants, and of the first, ten per cent. to a certain portion of putrid fluid produce death of the organisms; and of the second, thirty per cent. are required to produce the same effect;—are, of the second, six per cent. required to make the bacteria motionless, when, of the first, two per cent. are required for the same purpose?

This has certainly been anticipated by many authors, who, following the precedents of Calvert, used his methods but called the results derived therefrom the relative effectiveness of disinfectants.

I think we can safely say that, until the year 1875, no rational experiments regarding the relative effectiveness of disinfectants were ever published. Rational methods for the purpose of solving the question of the relative effectiveness require:

1. That the fluid containing the putrefaction or fermentation organisms shall be of as simple a composition as is consistent with the healthy development of these organisms.

2. After being treated with various quantities of the disinfectants, the death of the organisms must be proved by transferring them to a fluid well suited for their further development. If dead they will fail to develop; if not destroyed, the further development of these organisms will prove this.

These rules are simple, but their execution demands considerable care. In the following I will try to show how I have endeavored to solve this question: In order to comply with my first rule it became necessary to select a fluid well adapted for the development of these microscopic organisms. I had here the choice between Pasteur's liquid and Cohn's fluid.

The first contains in one hundred parts—

10 parts of sugar candy.
1 part of Ammonic tartrate.
0.5 part of Potassic phosphate.

The second contains in one hundred parts—

1 part Ammonic tartrate.
0.5 part of Potassic phosphate.
0.5 part of Magnesic sulphate.
0.05 part of Calcic phosphate.

I selected the second.

Prof. Zürn made experiments with some disinfectants in order to compare their relative value. The disinfectants examined were acetate of alumina, phenol, and salicylic acid, and the substance to be disinfected was a putrid fluid full of bacteria, micrococci, spirilla, etc. The results of the disinfection are to be found in the following tabulated statement. The experiments were made in such a manner that one drop of the liquid to be disinfected was under the microscope, mixed with one drop of the disinfectant mixed with water in such proportion as given in the tabulated statement :

SOLUTIONS OF	ACETATE OF ALUMINA.	PHENOL.	SALICYLIC ACID.
1 : 50	Infusoria and organisms producing putrefaction died at once. The albumen of the infusoria coagulated and the membrane burst.		
1 : 100	The same as before.		
1 : 300	Infusoria and organisms producing putrefaction died at once....		Infusoria and spirilla died within two minutes.
1 : 500	Infusoria died within 1½ minutes. Spirilla at once	Infusoria, spirilla, and bacteria died at once	Infusoria and spirilla live even after the lapse of several minutes.
1 : 1000	Infusoria lived for a few minutes. Spirilla died at once....................	Infusoria, spirilla, and bacteria died at once...............	Infusoria and spirilla lived for thirty minutes to one hour.
1 : 2000	Infusoria and spirilla lived for a few minutes...........	Infusoria, spirilla, etc., died at once or after the lapse of a few minutes...............	The organisms lived even after several hours.

Originally and independently of other publications I pursued a plan similar to that adopted by Prof. Zürn. The results, however, did not satisfy me, for the following reasons :

I first ascertained that bacteria are not necessarily deprived of life, if they have been made motionless. Motion is only one function of the life of these microscopic organisms, and after having been rendered motionless, this function can be restored to them again if they are by some means freed from the restraint put on them by the presence of certain substances.

Then, in the case of salicylic acid, it must be considered that fluids undergoing putrefaction in the presence of bacteria, spirilla, etc., show always an alkaline reaction, and considering the fact that salicylates are not disinfectants, it becomes evident that salicylic acid added to an alkaline solution may be rendered entirely inactive. For the purpose of ascertaining whether a disinfectant has actually killed the organisms or merely made them motionless, I have taken advantage of the fact that bacteria, etc., are carried off by the evaporating water, and that they will further develop if brought into a medium adapted for their existence. To carry out this plan I proceeded as follows :

Air purified by filtration through cotton and concentrated sulphuric acid, was allowed to pass through the liquid supposed to have been disinfected by the addition of various quantities of the above-mentioned disinfectants, and thence through a fluid which will render the development of organisms producing putrefaction possible. As such fluid I have adopted Cohn's solution, containing tartrate of ammonia, phosphate of potash, and phosphate of lime.

If air containing bacteria, etc., be pumped through this perfectly clear liquid, it will soon become turbid, and on examination under the microscope will be full of living organisms ; at the same time the reaction will change from slightly acid to alkaline.

Cohn's liquid, thus treated, furnished the material to which the disinfectants were applied. The fluid after such treatment became turbid, the dry residue of 25 c. c. collected on a filter was, however, hardly weighable, so that it might be considered that the results obtained are independent of the quantity of bacteria, etc., present in the fluid, and give directly the amount of disinfectant required in solution for the complete destruction of the putrefaction organisms. The three disinfectants I use in the shape of 1 per cent. solutions, the salicylic acid solution being obtained by means of hydrodisodic phosphate. The fluid containing the putrefaction organisms was then mixed with the disinfectant solutions in various proportions, and each bottle connected with a flask containing pure Cohn's fluid. The aspiration of *pure* air was then commenced with the aid of a Bunsen air-pump, the air passing first through the fluid supposed to be disinfected and thence through the test bottles containing pure Cohn's fluid. After 24 hours treatment the aspiration was discontinued. The flask which contained originally pure Cohn's fluid will be turbid by this time, or will become so in the course of a few days, provided the disinfection in the other flask was incomplete. When the disinfection was complete I have kept the bottles with Cohn's fluid clear for more than two weeks. To produce such results, however, the greatest care is requisite, for every portion of the apparatus must be carefully disinfected before use either by heat or alcohol.

The results obtained by this method may be found in the following tabulated statement, from which the following deductions can be made regarding the strength of the disinfectants applied. Cresylic acid will perfectly destroy bacteria, spirilla, micrococci, etc., if contained in the fluid in the proportion of 1 part to 516 parts of water.

Carbolic acid will do the same if contained in the fluid in the proportion of 1 part to 278 parts of water.

Salicylic acid will do the same if contained in the fluid in the proportion of 1 part to 200 parts of water.

CARBOLIC ACID.

DATE.	Quantity of Putrid Fluid Taken.	Quantity of 1 per cent. Carbolic Acid Solution Taken.	Proportion of Carbolic Acid to Water.	Days.	STATE OF FLUID IN THE TEST BOTTLE AFTER STANDING.
April 23	25 c. c.	25 c. c.	1 : 200	3	Fluid clear, disinfection complete.
" 26	25 c. c.	10 c. c.	1 : 350	2	" turbid, " incomplete.
" 28	25 c. c.	11 c. c.	1 : 327	2	" " " "
" 30	25 c. c.	12 c. c.	1 : 308	7	" " " "
May 7	25 c. c.	14 c. c.	1 : 278	12	" clear, " complete.
" 19	25 c. c.	12 c. c.	1 : 308	14	" turbid, " incomplete.
June 4	25 c. c.	11 c. c.	1 : 327	1	" " " "

CRESYLIC ACID.

Date.	Quantity of Putrid Fluid Taken.	Quantity of 1 per cent. Cresylic Acid Solution Taken.	Proportion of Cresylic Acid to Water.	Days.	State of Fluid in the Test Bottle after Standing.
April 25	25 c. c.	25 c. c.	1 : 200	3	Fluid clear, disinfection complete.
“ 26	25 c. c.	10 c. c.	1 : 350	2	“ “ “ “
“ 28	25 c. c.	9 c. c.	1 : 377	2	“ “ “ “
“ 30	25 c. c.	8 c. c.	1 : 412	7	“ “ “ “
May 7	25 c. c.	7 c. c.	1 : 457	12	“ “ “ “
“ 19	25 c. c.	6 c. c.	1 : 516	14	“ “ “ “
June 4	25 c. c.	5 c. c.	1 : 600	1	“ turbid, “ incomplete.

SALICYLIC ACID.

Date.	Quantity of Putrid Fluid Taken.	Quantity of 1 per cent. Salicylic Acid Solution Taken.	Proportion of Salicylic Acid to Water.	Days.	State of Fluid in the Test Bottle after Standing.
June 23	25 c. c.	12 c. c.	1 : 308	2	Fluid turbid, disinfection incomplete.
“ 25	25 c. c.	16 c. c.	1 : 256	5	“ “ “ “
“ 30	25 c. c.	17 c. c.	1 : 247	3	“ “ “ “
July 2	10 c. c.	20 c. c.	1 : 150	3	“ clear, “ complete.
“ 5	10 c. c.	15 c. c.	1 : 166	4	“ “ “ “
“ 7	10 c. c.	10 c. c.	1 : 200	2	“ “ “ “
“ 9	20 c. c.	15 c. c.	1 : 233	2	“ turbid, “ incomplete.

For the purpose of determining the antiseptic properties of these substances, a number of wide-mouth glass-stoppered bottles (4 oz.) were charged with 25 c. c. of pure Cohn's fluid, and then with varying quantities of one per cent. disinfectant solutions. So with cresylic solution with 1, 2, 3, 4, and 5 cubic centimetres, with carbolic solution with 4, 6, 8, 10, 11, 12, 13, and 14 cubic centimetres, and with salicylic acid solution with 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 cubic centimetres. Then to each bottle one drop of putrid Cohn's fluid was added.

The reaction of the contents of all the bottles was acid at the outset. Those containing 1 c. c. cresylic and 1 c. c. salicylic acid became in the course of one week alkaline, which reaction was accompanied by the development of bacteria, etc. After one month's standing the contents of the bottle charged with cresylic acid were densely covered with the mycelium of aspergillus glaucus, the reaction of the fluid had again become acid, and in consequence the development of bacteria was checked.

The reaction of the contents of the bottle charged with salicylic acid is now, after 35 days, alkaline; fungi are developing on the surface (mucor mucedo and aspergillus glaucus). None of the other bottles charged with either cresylic or carbolic acid show development of bacteria or fungi after 35 days' standing.

The contents of all the bottles containing various quantities of salicylic acid are either infested with bacteria or have developed fungi, the bacteria being confined to the bottles containing least of this substance.

It would be difficult to explain these apparent anomalies if we had not Prof. Kolbe's statement that only free salicylic is able to act, and that salicylates have no disinfecting properties. If we add salicylic acid to a fluid containing salts and living bacteria, and then exclude the impure outside air, salicylic acid seems to have sufficient time to destroy all the germs before its reaction with the salts is completed. If, however, salicylic acid is mixed with salt solutions (nearly neutral, as in the case of Cohn's solution) for some time, compounds may form in which the salicylic acid loses its disinfecting properties, and therefore cannot exert any influence on germs entering the fluid after such reaction has taken place.

The appearance of fungi on the surface of the contents of glass-stoppered but not hermetically sealed bottles after the lapse of about two weeks, may thus be explained.

The alkaline reaction of Cohn's fluid, after it had been stocked with bacteria, is also in my experiments a drawback, for this reaction is not only due to the formation of tribasic phosphates or dibasic tartrates, but also to some ammonic carbonate. I have therefore tried starting with an acidified solution.

If 1 1 c. c. of a normal sulphuric acid solution were used for 20 c. c. putrid Cohn's fluid to remove the alkaline reaction and produce a color like that which is due to hydrodibasic phosphates, on examining the fluid under the microscope, bacteria, etc., appeared motionless, yet, they were not lifeless, for after another cubic centimetre of the same acid had been added and after the fluid had been tested in the aspiration apparatus, it appeared that these organisms had not been destroyed, for they soon commenced to develop in the flask containing pure Cohn's fluid.

Using for 20 c. c. putrid fluid 1.1 c. c. normal sulphuric acid solution and 10 c. c. one per cent. salicylic solution, a complete disinfection could be obtained. Not so, however, if the quantity of salicylic solution was reduced to one-half.

After the alkaline reaction had been removed, I was able therefore to fully destroy the life of bacteria with salicylic acid contained in the fluid in the proportion of 1 to 300. The fact, however, that the bacteria had been rendered motionless by the addition of sulphuric acid suggested to me the necessity of determining the effects of the acids as such.

The following results were obtained:

Date. 1877.	Quantity of Putrid Fluid Taken.	Quantity of 6.7 per cent. Hydrochloric acid.	Proportion of Acid to Water.	Days—State of Test Fluid.
November 17	10 cub. cent	5 cub. cent	1 : 45	19 clear.
" 17	10 cub. cent	10 cub. cent	1 : 30	19 clear.
December 5	10 cub. cent	2 cub. cent	1 : 89	12 turbid.
" 5	10 cub. cent	3 cub. cent	1 : 64	12 clear.
" 22	10 cub. cent	2¼ cub. cent	1 : 81	8 turbid.
" 22	10 cub. cent	2½ cub. cent	1 : 74	13 turbid.

This shows that the minimum quantity of hydrochloric acid capable of producing complete disinfection, is 1 part in 64 parts of the fluid. The reaction of the fluid, which was to be disinfected was slightly acid at the outset, which shows that more of the acid was required for neutralization.

It should be remarked yet that in all cases where a complete disinfection was obtained the bacteria had completely dissolved in the acid, and the fluid had thus become perfectly clear.

It is perhaps not impossible that the disinfecting properties of many metallic salts are proportionate to their percentage of acid, and the facility with which they may part with it. I refer here especially to the ferrous and ferric salts, zinc and aluminium compounds. There is, however, no doubt that in many cases the metal itself must be credited with the bulk of effectiveness produced by the salts.

Before going any further, I desire to give the results of two experiments regarding the disinfecting properties of an alcoholic solution of picric acid in slightly acidified putrid fluids, which prove that picric acid acts like salicylic acid under these circumstances.

While a slightly alkaline putrid fluid could not be completely disinfected with picric acid, when in the fluid in the proportion of one part to two hundred parts, a complete disinfection could be obtained by the addition of 0.3 c. c. normal sulphuric acid solution for 10 c. c. of the putrid fluid, which just sufficed to remove the alkaline reaction.

The complete disinfection was proved by allowing the apparatus to stand for fifteen days, when the test fluid remained perfectly clear.

The advantages of the method described above consist mainly in the fact that it is possible to exclude outside interference more completely than by any other yet proposed, the apparatus being put together under circumstances excluding the presence of living bacteria in any place but the putrid fluid used. For better understanding I will describe the manipulation more minutely.

The flasks, which are part of the apparatus, were first filled with alcohol, and then dried in an air-bath at a temperature of between 120 and 130° c. The connecting glass tubes and rubber stoppers and connections were disinfected by immersion in strong alcohol for one hour, taking special precaution that the accumulation of air-bubbles in the tubes did not prevent the thorough contact of the alcohol with their whole surface.

The bottles which were to receive the pure test fluid (Cohn's) were then charged, and the fluid boiled for several minutes. While this was in progress, the other bottles destined to receive the putrid fluid were taken from the air-bath, and, while hot, charged with the required quantity of putrid Cohn's fluid, and the quantity of disinfectant to be tested. The thinness of the glass of the flasks prevented the fluid itself from being heated to any deleterious extent during this operation. The flasks were then at once closed with the stopper containing the connecting tubes, and which to this time had remained immersed in alcohol, but which was freed from it by jerking, so that only a trace, in the shape of a thin film covering the surface, remained at the time the connection was effected.

The flask containing the boiling test fluids was then likewise closed, and the connection at once made.

The tubes filled with cotton were likewise disinfected by alcohol and heat. The suction with the aid of a Bunsen filter pump was commenced in about a quarter of an hour after the test fluid had sufficiently cooled to become a base for the further development of the organisms contained in the other flask.

Probably all the organisms are not readily conveyed from one flask to the other, and I would not be surprised if some species of bacteria, for instance, were found wanting this property, which is so necessary for a successful application of this method. I have, therefore, taken the precaution to use putrid fluids into which these organisms have been conveyed in the manner described.

If all the organisms belonging to the species bacterium should, however, pass off with the evaporating water, and it would be only a question of retaining them in the flask containing pure Cohn's fluid, there is no doubt that, if a rapid current of air will not allow this, the period of calm after the suction is discontinued, and which ranges in my experiments from two to eighteen days, should be sufficient to effect it.

That even dead bacteria follow the current of air was stated by Högyes.

Objections against the reliability of this method, which are founded on a point of non-conveyability of the bacteria, have, therefore, hardly a foundation.

Graver objections are found in the composition of Cohn's fluid, which, in cases as cited above, not unfrequently interferes with the action of the disinfectants, and in the presumption that volatile disinfectants might be carried into the breeding solution, and there prevent, by reason of their always greater antiseptic properties, the further development of the bacteria which reached the fluid alive. It was partly for this reason that I adopted the long continued treatment with large quantities of fresh air to dilute, and thus weaken, the antiseptic influence of these substances.

It is unfortunate, however, that these determinations require considerable time and many sets of apparatus.

L. Buchholtz of Dorpat published, about one month after my first report to the Health Department, a method similar, but simpler than my own. He had chosen Pasteur's fluid for his operations, and the death of the organisms, which had been treated with various quantities of disinfectants, was proved by transferring them, by means of a pipette, to pure Pasteur's fluid, which was contained in test tubes closed by a stopper of carbolized cotton. The strongly acid reaction of Pasteur's fluid has led him to consider substances like sodium salicycate as disinfectants, while others have repeatedly proved that such is not the case. But, disregarding this, there is one point which made me refrain from the use of this simplest of all methods.

If there is a possibility of the organic substance of the bacteria uniting with the disinfectants which had been applied, it becomes evident that, in many cases, considerable quantities of the disinfectant must be transferred to the fluid in which the weakened bacteria are expected to grow.

Interesting are this author's experiments on the true action of disinfectants on the bacteria.

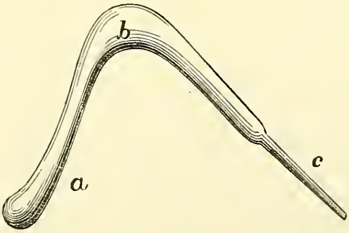
While, in the case of carbolic acid, he considers it necessary for effective disinfection that it should be contained in the fluid in a proportion of at least 1 part in 25 parts, he found that 1 part in 100 parts would perform the same work if bacteria and carbolic acid had been in contact for fifty minutes.

According to experiments related above, I found the minimum quantity of carbolic acid which is required for the demonstration of its antiseptic properties to be 1 part in 125 parts.

Buchholtz requires 1 part in 200 parts. Though my fluid, after infection, had remained in a loosely covered bottle for more than eight months, it showed not the least development of bacteria; so that, therefore, not only the activity of the bacteria which had originally been added, but also the activity of those which had occasion to enter the fluid thereafter, was readily arrested.

The manipulations being the same, the difference of action must be found in the nature of the respective fluids (Pasteur's and Cohn's), or the nature of the bacteria, or in both of these circumstances combined.

For the purpose of testing non-volatile and not oxygen absorbing disinfectants I use at present the following plan:



My apparatus is a V-shaped glass tube, which is at *b* widened to a little bulb for the purpose of having a larger volume of available air. Into the small bulb *a* a solution of one part of Cohn's fluid with one part of water is brought by slightly heating the apparatus, and then, while it is cooling, dipping the end *c*, which is drawn to a fine point, into the mixture, until sufficient of the fluid has entered the lower part of the tube. By proper inclination this may then be transferred to *a*. The bulb *a* is then heated until about one-half of the fluid has passed off, when the remainder will have the concentration of normal Cohn's fluid.

While this process is going on the point *c* passes into a test tube, which is closed by a stopper of very slightly carbolized cotton. The tube is then allowed to cool while it remains in this position. It is evident that during this process it must fill with pure air, provided that the air in the test tube is free from germs. To effect this the test tube had been previously partially filled with water, which was then boiled for several minutes, while being closed with a cotton stopper. While the cooling process of my V-shaped tubes, of which several may at the same time be passed through the cotton stopper, is going on, the mixtures of putrid Cohn's fluid (first infusions only) with various quantities of disinfectants are prepared, and then a few drops of this mixtnre are made to enter at *c* in the same manner as described above for filling in of Cohn's fluid, with the difference however, that this fluid is suffered to remain at *c*.

The tubes must be removed from the fluid before the contraction of the air inside is completed. This is necessary to permit the fluid to recede from the lower end of *c*, which is to be immediately closed before a flame. If this precaution be not taken, the fluid itself might become so heated that this alone, without the aid of disinfectants, might be sufficient to cause the death of the organisms.

These tubes can remain under observation for any length of time.

The circulation of the air can be promoted considerably by slight differences of temperature to which the two shanks of the tube may be exposed.

The principle of this appliance is the same as that of the other, viz. : Determination of the possibility of infection from the air standing over a putrid fluid, to which various quantities of disinfectants have been added. A marked difference exists, however, in so far as in my first method I worked with a large excess and strong current of air, while here the amount of air is limited. As to the results of the large series of experiments, I am not prepared yet to report. This method being, however, far easier of execution, and requiring no complicated apparatus, will enable me to examine the questions involved more completely.

The special points which I desire thus to solve are the following:

1. Is there any difference in the results which may be obtained by my original method and the one now proposed?

2. How are the results influenced by the use of Pasteur's or Cohn's fluid respectively?

3. How do the results obtained by the use of Pasteur's fluid with this method compare with Buchholtz's?

4. Action of disinfectants on different species of bacteria.

The experiments described above are founded on the belief that the bacteria themselves must be considered as the last cause of disease. Whether they merely act mechanically, as some physicians hold, or whether the chemical changes which they produce in the constituents of the body impart or constitute disease, the action of substances which we class as disinfectants on these bacteria remains of equal importance.

For practical application, however, it must always be considered that it is not only the organic living mass which comes in contact with the disinfectants, but many other substances, which, if they possess affinities for them, will form combinations which may destroy the efficiency of considerable quantities of the disinfectants.

In using disinfectants with the view of attaining practical results, the quantities to be taken are governed by the composition of the material to be disinfected.

Our ordinary methods of disinfection seem to be fully equal to the demand, yet there are customs which I consider entirely unwarranted if we compare them with the results of the experiments described. I refer here to the use of carbolic acid for the impregnation of the air in sick rooms. If we should evaporate carbolic acid in the air to such an extent as would be required, the smell would be so strong that no human being could sustain it for any length of time. It may therefore be asked why I have not recommended a discontinuance of this system.

In answer to this I will state that I consider this homœopathic application of carbolic acid of practical value in so far as its smell, better than posted notices, warns strangers of the danger to which they expose themselves by remaining in an infected atmosphere.

The best agent for purifying the air in sick rooms, is an abundant supply of fresh air. Ventilation is, however, not disinfection, but merely dilution, and the air, however purified by it, remains infectious, though in a less degree, and should not be allowed to contaminate the fresh air supply of healthy inmates of an infected house. Hence, on account of the ascending motion of the air in our houses, the sick can remain on the upper floor, if quarantine is well kept up, while a case of contagious disease, such as small-pox, in one of the lower stories is almost invariably followed by an outbreak of the disease in the upper stories.

In such cases, the timely removal of the sick to a hospital, followed by fumigation with sulphurous acid, is a *sure* remedy. According to Buchholtz's experiments chlorine would be a far more effective disinfectant, but if we consider that chlorine is a destructive agent of all kinds of metals, textile fabrics, and colors, the use of sulphurous acid appears preferable, and, indeed, we have used chlorine only in cases where there was nothing to destroy, as in the rooms inhabited by paupers or in hospitals.

From my statistics of the last six years, I have come to the conclusion that the use of sulphurous acid is followed invariably by an absolute destruction of the contagion, while the prophylactic action of carbolic acid and its preparations has been more than doubtful, unless they were applied in such strength or quantity as is within the limits of the experiments cited above. This can, however, but rarely be done on account of the disagreeable and very lasting smell of this substance.

While in cases of contagious disease we apply disinfectants for the absolute destruction of the contagion, in many other cases we only endeavor to deodorize, and to arrest putrefaction for such a time as will be required for the final removal of the putrefying material from the premises (Disinf. of privy vaults, street gutters, etc.).

This becomes evident from the quantities of disinfectants, which were supplied for these purposes. I consider this sufficient, as long as no such diseases as cholera make their appearance.

TESTING COMMERCIAL DISINFECTANTS.

This can generally be attained by our common methods of chemical analysis. Yet in some cases, especially during the summer, when the consumption is large, I had to confine myself to a few tests.

The following were for testing metallic solutions:

1. Specific gravity.

2. Absence of the salts of soda, lime, etc. This is easily done by precipitating a certain quantity with ammonia and ammonium sulphide, filtering, evaporating the filtrate and igniting the residue.

3. Free acid is roughly determined by adding carefully a standardized solution of soda until a permanent precipitate is obtained.

Test No. 2 became necessary for several reasons. The metallic solutions are obtained either in the freeing of tin scrap from tin, or they are the residues from the manufacture of chlorine.

The tin was removed from the scraps originally by muriatic acid with the addition of some nitric acid. Subsequently a mixture of muriatic and sulphuric acids with sodium nitrate was used.

In some instances, during the year 1874, I found as much soda in solution as would correspond to 7° Beaume.

Chlorine may be manufactured from manganese and muriatic acid, but is far more frequently obtained by using a mixture of manganese, salt, and sulphuric acid.

As to test No. 3, I desire to say, that as, according to my statement above, the acids themselves are disinfectants, it might be deemed unnecessary to make such determination. But if we consider that at that time I had not yet determined that free acids have such decided disinfecting properties even in a somewhat diluted state, and that they are more liable to destroy and corrode the apparatus used for the distribution of the fluids, this course becomes justifiable.

Regarding the determination of the strength of carbolic and cresylic acid mixtures, I prefer the following plan:

The water is determined by distillation, which is to be continued as long as the distiliate appears milky. Oil and water soon separate, and the volume of the latter may then be determined.

To determine the oily substances it has been proposed to remove the acids by water. This process, however, is very incomplete, since the acids are entirely removed with difficulty, and only after repeated treatments with fresh quantities of water. They divide between the inert oils and the water in the proportion of their solubility in either of the solvents, and the relative quantity of each of the solvents present.

Their solubility in the oils is, however, far greater than in water. If the quantity of the oils is considerable, as, for instance, in dead oil, one hundred parts of water to one part of dead oil, remove less than one-half of the whole amount of acids present.

There is, therefore,.no other way left to us but to extract these alcohols by means of soda or potash solution. This is best done by heating in a flask, which is connected with an inverted cooler if light oils are expected.

The amount of the residue is measured*, and by deducting this and the amount of water previously determined from the amount taken for the determination, the amount of the acids is found.

There is no doubt that besides the carbolic and cresylic acids other acids may be removed and counted as such, and that, therefore, we might overestimate the amount of these substances. These other acids are contained in the oil, but in very small quantities; but yet this would constitute an objection if these acids were without disinfecting properties, a fact which has not yet been proved.

To obtain a clue as to the nature of the acids, the alkaline solution can be acidified and precipitated with bromine water. Carbolic acid gives a white flocculent precipitate, ortho-cresylic acid a resinous one, and para-cresylic acid a fluid one.

Carbolic and ortho-cresylic acids form tribrom derivatives, while para-cresylic acid seems to require less bromine for complete precipitation (five equivalents).

A stratum of sesquichloride of iron gives a blue color in the presence of carbolic acid and precipitates in the presence of the cresylic series.

The problem of finding an entirely satisfactory method for the determination of these coal tar acids, is left, therefore, unsolved.

Respectfully submitted,

H. ENDEMANN, PH. D.,
In charge of Disinfecting Corps.

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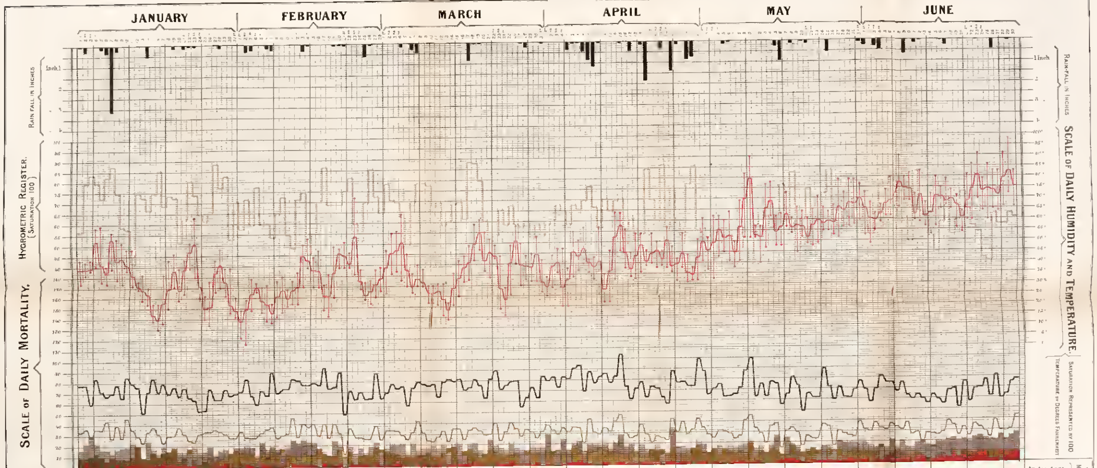
* With or without the addition of a measured quantity of light oil.

STATIGRAPHIC CHART

ILLUSTRATING THE ACTUAL DAILY MORTALITY IN THE CITY OF NEW YORK DURING THE SIX MONTHS ENDING JUNE 30TH 1874.

(With Daily Meteorological Observations)



WEEKLY MORTALITY: AT ALL AGES	216	519	512	463	466	509	537	536	483	505	545	[illegible]	[illegible]	541	583	578	484	556	499	509	459	481	503	444	442	476	216
WEEKLY MORTALITY: CHILDREN UNDER 5	93	254	213	207	219	220	239	210	205	229	207	[illegible]	23[illegible]	221	226	237	206	239	209	218	184	199	241	207	215	216	104
WEEKLY MORTALITY: ZYMOTIC DISEASES	16	128	131	114	113	128	146	109	117	132	128	12[illegible]	115	134	125	121	127	117	115	121	104	123	122	125	139	161	75
WEEKLY MEAN TEMPERATURE (FAHRENHEIT)	39.9	44.2	25.0	37.6	27.5	21.9	32.0	36.1	34.8	40.4	26.2	43.5	37.8	46.0	51.1	42.9	44.1	41.7	54.7	61.5	57.4	63.1	64.9	70.6	67.1	73.2	78.5
WEEKLY MEAN PRESSURE OF ATMOSPHERE.	30.21	29.879	30.024	30.125	30.146	30.191	29.964	29.982	30.039	29.851	29.596	30.016	29.947	29.917	29.680	30.144	29.920	29.708	29.959	30.009	29.815	29.879	29.872	29.812	29.983	29.837	29.704
DEPTH OF RAIN FALL (INCHES) EACH WEEK	.35	3.02	.55	.38	.13	.95	.31	.13	.62	.93	—	.91	.25	.03	2.87	.52	3.08	1.70	.15	1.17	.31	.51	1.22	.82	.32	.50	.02

DAILY MEAN TEMPERATURE
DAILY RANGE OF TEMPERATURE.
DAILY HUMIDITY
MORTALITY EACH DAY IN THE YEAR. { FROM ALL CAUSES
CHILDREN UNDER 5
RAIN FALL ▬
TOTAL MORTALITY EACH DAY { FROM THE ZYMOTIC DISEASES ▬
" DIARRHŒAL MALADIES 🟥
" PHTHISIS PULMONALIS ▬

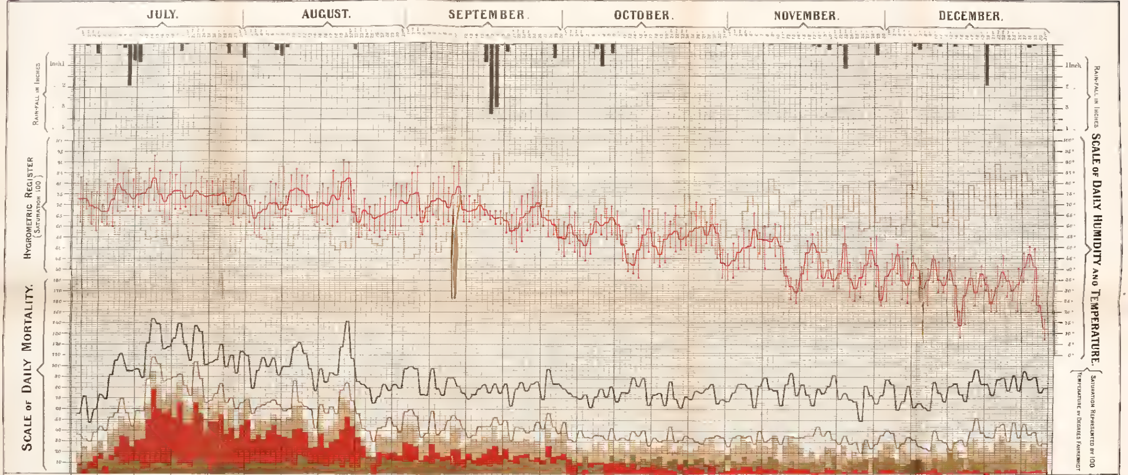
[illegible] Dr F. Harris Reg. Vital Statistics

[illegible]

STATIGRAPHIC CHART

ILLUSTRATING THE ACTUAL DAILY MORTALITY IN THE CITY OF NEW YORK DURING THE SIX MONTHS ENDING DECEMBER 31ST 1874.

(With Daily Meteorological Observations.)



WEEKLY MORTALITY	AT ALL AGES	236	610	891	861	744	651	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	540	[illegible]	560	510	543	503	[illegible]	[illegible]	561	548	486	[illegible]	476	475	579	[illegible]
	CHILDREN UNDER 5	134	359	582	590	484	444	432	464	302	321	328	297	[illegible]	286	252	236	232	228	[illegible]	225	253	194	229	203	256	266	174
	ZYMOTIC DISEASES	88	276	431	467	402	362	350	387	229	271	250	259	[illegible]	219	179	168	179	180	137	189	154	142	159	132	177	185	126
WEEKLY MEAN TEMPERATURE (FAHRENHEIT)		70.9	73.0	75.9	74.8	73.7	68.2	73.5	73.9	64.8	70.1	72.1	66.2	64.1	58.9	50.4	51.4	53.5	56.2	49.3	44.3	42.2	40.4	36.8	36.9	30.6	31.9	23.1
WEEKLY MEAN PRESSURE OF ATMOSPHERE.		29.834	29.864	29.977	30.019	29.834	29.893	29.851	29.968	30.022	30.004	29.955	30.101	30.091	29.736	29.991	30.023	30.099	29.948	30.157	30.105	30.084	29.926	30.129	29.991	30.026	29.364	30.124
DEPTH OF RAIN FALL (INCHES) EACH WEEK		.47	2.02	.83	.39	1.14	1.35	.17	.24		.02	—	7.18	.40	.64	1.68		.01	.01		.05	.44	1.25	.58	.56	.13	1.99	.14

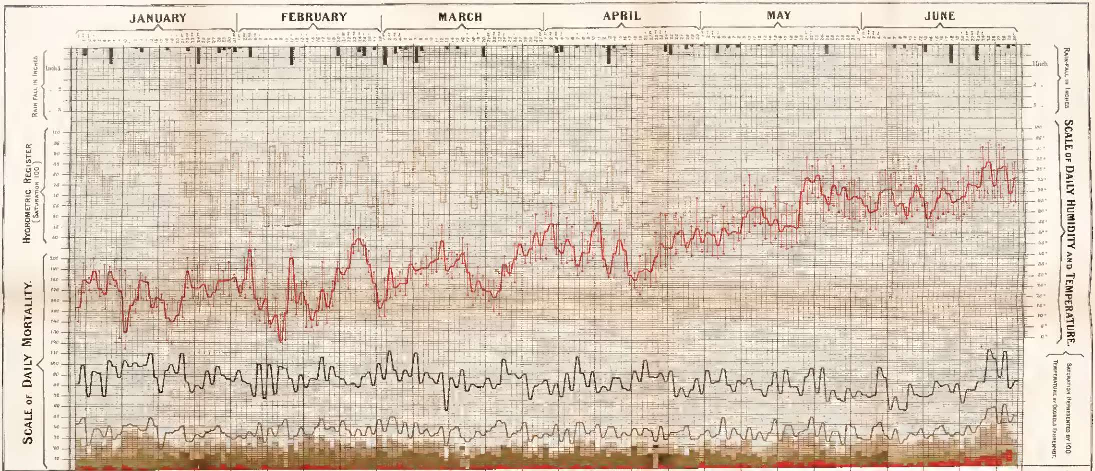
Prepared under the direction of [illegible] Harris Reg. Vital [illegible]

Endicott & Co. Lith. 57 Beekman St. N.Y.

STATIGRAPHIC CHART

ILLUSTRATING THE ACTUAL DAILY MORTALITY IN THE CITY OF NEW YORK DURING THE SIX MONTHS ENDING JUNE 30TH 1875.

(With Daily Meteorological Observations.)



Weekly Mortality: At All Ages	181	612	696	624	604	578	611	622	582	653	596	564	607	545	593	541	617	527	578	544	560	497	514	430	510	571	344	At All Ages (Weekly Mortality)
Weekly Mortality: Children Under 5	94	239	291	222	245	229	261	268	258	289	241	230	265	235	243	243	236	228	240	227	247	223	225	204	219	288	186	Children Under 5 (Weekly Mortality)
Weekly Mortality: Zymotic Diseases	58	164	236	158	164	173	154	196	165	179	163	122	153	138	158	147	156	137	160	145	205	145	177	158	184	205	132	Zymotic Diseases (Weekly Mortality)
Weekly Mean Temperature (Fahrenheit)	23.5	28.5	19.9	19.4	26.5	26.4	17.0	20.4	38.8	26.7	37.2	32.1	31.7	47.2	43.6	41.3	36.6	48.1	50.0	58.9	61.8	69.8	65.4	66.1	65.0	74.7	77.6	Weekly Mean Temperature (Fahrenheit)
Weekly Mean Pressure of Atmosphere.	30.13	30.126	30.202	30.195	29.934	30.031	30.061	29.932	29.854	30.028	29.875	29.823	30.025	30.162	30.051	29.733	29.711	29.851	29.788	29.889	29.853	29.885	30.029	29.919	29.822	29.913	29.877	Weekly Mean Pressure of Atmosphere.
Depth of Rain fall (Inches) Each Week	35	78	24	31	1.25	77	83	40	79	1.57	1.17	66	08	40	39	1.21	37	77	72	05	08	42	—	.42	1.25	72	33	Depth of Rain fall (Inches) Each Week

Daily Mean Temperature
Daily Range of Temperature

Daily Humidity

Mortality Each Day in The Year { From All Causes
Children Under 5

Rain fall ▬

Total Mortality Each Day { From The Zymotic Diseases
" Diarrhœal Maladies
" Phthisis Pulmonalis

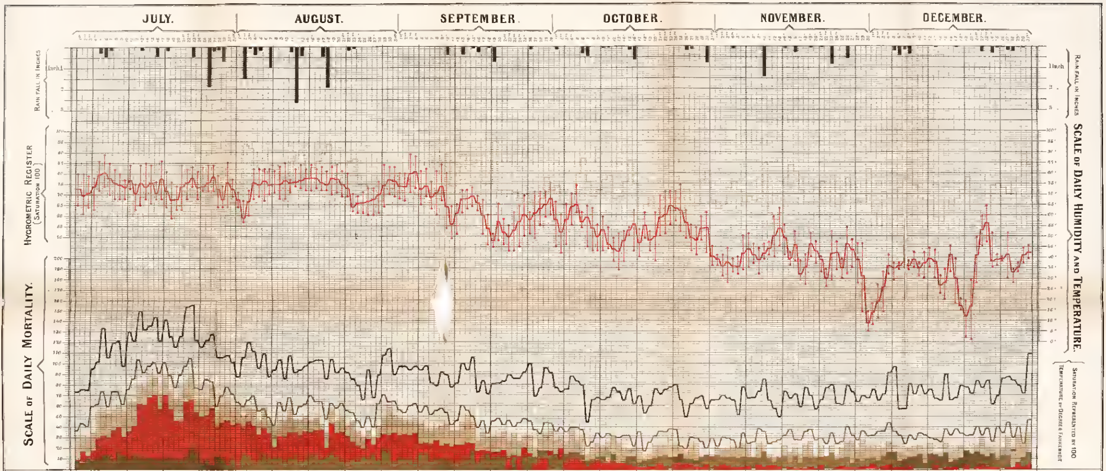
Prepared under the direction of Dr E Harris Reg. Vital Statistics

[illegible] & Co Lith 5 Beekman St N Y

STATIGRAPHIC CHART

ILLUSTRATING THE ACTUAL DAILY MORTALITY IN THE CITY OF NEW YORK DURING THE SIX MONTHS ENDING DECEMBER 31ST 1875.

(With Daily Meteorological Observations.)



WEEKLY MORTALITY	AT ALL AGES	224	774	934	939	786	718	674	685	572	697	612	610	599	583	505	486	453	451	463	467	475	498	505	511	511	525	517
	CHILDREN UNDER 5	122	465	648	637	523	418	399	426	344	427	371	330	313	278	230	207	217	182	190	188	223	208	241	217	221	237	214
	ZYMOTIC DISEASES	93	374	632	548	457	380	336	338	263	352	284	272	220	212	184	166	146	134	141	124	139	146	161	139	143	145	156
WEEKLY MEAN TEMPERATURE (FAHRENHEIT)		71.1	76.4	74.5	72.6	73.9	70.5	76.0	76.4	67.5	76.5	68.5	63.4	53.5	60.2	57.6	48.6	54.5	50.1	37.8	44.5	41.2	39.4	24.6	36.0	31.2	36.5	33.2
WEEKLY MEAN PRESSURE OF ATMOSPHERE.		29.98	29.966	29.662	29.817	29.893	29.934	29.866	29.804	30.110	29.852	29.930	29.966	29.983	29.806	30.012	29.891	29.886	29.765	29.792	29.913	29.700	30.214	30.186	29.670	29.611	30.054	30.148
DEPTH OF RAIN FALL (INCHES) EACH WEEK		—	.88	.53	.59	2.89	3.14	3.28	2.38	.16	—	.39	.68	.71	.23	.76	.85		1.11	.11	1.41	.37	1.90		1.14	.04	.56	.48

DAILY MEAN TEMPERATURE /\/\/\

DAILY RANGE OF TEMPERATURE. ┃┃┃┃┃┃┃

DAILY HUMIDITY ⊓⊓

MORTALITY EACH DAY IN THE YEAR. { FROM ALL CAUSES /\/\/\
CHILDREN UNDER 5 /\/\/\

RAIN FALL ▬

TOTAL MORTALITY EACH DAY { FROM THE ZYMOTIC DISEASES ▬
" DIARRHŒAL MALADIES 🟥
" PHTHISIS PULMONALIS ▬

Printed under the direction of [illegible]

BUREAU OF VITAL STATISTICS.

REPORT OF THE REGISTER.

To the Secretary of the Board of Health:

SIR—I have the honor to submit to the Health Department its Report of the Bureau of Vital Statistics, for the years 1874 and 1875.

New York is growing as most of the great cities grow; its commercial front and a constantly advancing and enlarging area demanded by its trade and manufacturing interests, crowd the population outward. In this gradual exclusion of dwelling houses from the older streets and older wards by the encroachments of commerce, the poor classes of our city population have continued to undergo the perils of excessive concentration in tenement houses, while the more favored classes have, with signal advantage to health, established their habitations farther away from the crowded portions of the city.

The census of 1875 found in this city 1,041,886 inhabitants. The enumeration having been made in midsummer, when the resident population was at the lowest number, we may, for the ordinary uses of reference to the census of population, consider that as a fair average of the number of inhabitants for which the ratios of deaths, births and marriages in the year 1874, as well as in 1875, shall be estimated. The re-enumeration of the city population under the ninth national census in the winter of 1871, found two per cent. increase upon the census as taken in June, 1870, and that increase was chiefly due to the fact when the re-enumeration was made "the season was that in which the city realizes the greatest population, and thousands are back for the winter" (see statement by the Superintendent of Ninth National Census, Vol. *Population*, page 21.) The fact that the number of inhabitants is some two per cent. greater in this city in winter than in summer, also that the fluctuations in the total vast number of strangers in the city are even greater than this difference between the summer and winter residents, shows plainly that the census enumeration on which the death-rates are estimated is always below the actual number of inhabitants whose legal residence is in the city.

Out of this population there died 28,727 persons in the year 1874, and 30,709 in the year 1875. This "death-toll" equals a ratio of 27.57 deaths to every 1,000 inhabitants in 1874, and 29.47 deaths to the 1,000 in 1875. The fact that nearly or quite nineteen square miles (19¼ square miles, including some lands partially covered with water,) were annexed to the city at the beginning of the year 1874, with about 33,000 inhabitants, renders it expedient to rely upon the census of 1875, as the basis of all references which will need to be made to the estimated population, in the year 1874, as well as in the census year, 1875, itself. The average number of city inhabitants throughout the year 1874, was little less than the enumerated population in June, 1875, while the average number in 1875 probably was not more than 1 per cent. greater than the enumeration found. Therefore, for all practical uses, that census is an entirely satisfactory basis for the statements of death-rates and birth-rates in each of these two years.

Annual Rate of Increase of the Population.—The census taken by State authority in the summer of 1875, after all the revisions relating to public institutions, etc., reports the number of inhabitants in this city to have been at the time of that enumeration 1,041,886, or 99,589 more than the enumeration in the winter of 1871, found in this city south of Harlem river, as then bounded. The twenty-two wards of the old city, extending from Whitehall to the Harlem river, contained at the date of the last census 1,005,692, or 63,400 more inhabitants than were re-enumerated in the census in the winter of 1871; but the latter enumeration showed an increase of 18,348 over the enumeration in June preceding, when only 923,744 were found. The actual increase, therefore, in the five years ending in June, 1875, was 81,948.* The mean annual increase in the twenty-two wards (old city) during those years is expressed by the decimal co-efficient .0171, or the rate per cent. of 1.71. This is a little greater than the annual rate of increase in London for the ten years ending in 1871, for the census of England that year found that the co-efficient of annual increase in London from 1861 to 1871, was .0150, or 1.50 per cent. The suburbs of New York, like the suburban or outer ring of London, will show what has occurred in the outgrowth and overflowing of the metropolitan population. Even Brooklyn, the right wing of the American metropolis, increased its population in the five years preceding the enumeration in June, 1875, at the rate of a little more than 4 per cent. annually; while the 576 square miles called the outer ring of London, with its population of nearly 800,000, is in like manner increasing at the rate of 4 per cent. annually. The increase of suburban populations, the greater security and more rapid increase of infant life among them, and generally the lower death-rate in them at all ages, are facts worthy of notice when the increase and the mortality of the population in the more crowded city are brought under examination.

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* This statement relates to the twenty-two wards, or old city, as the two new wards, added in 1874, included parts of townships in which the census of 1870 could not be separately stated.

The suburban or outer ring of New York, as a metropolis, nearly equals the area covered by the London outer ring, as here referred to, and over the greater portion of the outer New York, the rate of increase by living children is greater, and the rate of mortality is less than in the great city itself. The increase of population in New York city by births would be fully 3.6 per cent. or 36 and upwards in 1,000 annually, if there were no account made of the general mortality; but nearly 3 per cent., or from 28 to 30 in 1,000, of the city inhabitants die in the course of a year, so that little more than half (.5) of 1 per cent. is actually added to the living population by the newly born. With 8,279 deaths of infants under 1 year of age in 1874, and 8,540 in 1875, and during the five years ending December 31, 1875, 43,279 such deaths of infants before a year old, it is fortunate that the birth-rate in any degree exceeds the death-rate. There are some great cities in which the number of deaths exceeds the number of births, but New York is not one of them, as many persons suppose.

The Child Population, as found by the Census in 1875.—The revised returns of the census, as taken in the summer of 1875, give the following figures for the different ages of the child population:

Abstract, showing the Number of Children under Five Years of Age enumerated in the City of New York in June, 1875.

	MALES.	FEMALES.	TOTALS.
Under 1 year of age	14,017	13,765	27,782
Between 1 and 2	13,049	12,304	25,353
" 2 and 3	13,457	13,264	26,721
" 3 and 4	12,542	12,421	24,963
" 4 and 5	11,681	11,669	23,350
Total under 5 years of age	64,746	63,423	128,169

The increase of the city population by the immigration from foreign countries is not now as rapid as in former years. A comparison of returns of the census, taken by State authority in 1875, and by National authority in 1870, shows that while the total increase of inhabitants in the twenty-two wards south of the Harlem river was, at the most, 81,747 (that is, as re-enumerated in 1870–71), the increase in the foreign born was only 14,117. It is clearly true, therefore, that the migration to this city by natives of the United States greatly exceeds the number of foreign immigrants who yearly take up residence here on their arrival. The inflowing migration, from all parts of our country, of vigorous and enterprising inhabitants, is going on more rapidly than the increase of births over total deaths, and like the best of the immigration from foreign countries, it brings fresh resources of wealth and vigor to the city population. The useful undoubtedly exceed the useless elements in each of these two chief sources of the city's growth, and it would be still more fortunate for the city and the nation if the better part of the infants and children who die were only saved to grow up in health and vigor. The 6,000 to 7,000 by which the births now outnumber the total deaths might, by such saving of infant life, be raised to 12,000 annually.

The Superintendent of the Census Bureau at Albany has kindly caused a careful revision of the enumeration of children in New York city to be completed for our use. The following abstract shows an increase of the child population under five years of age in the city, over that which the Census Bureau at Washington reported from the enumeration of 1870–71, amounting to no less than 17,018.

The records of mortality in this city show that during the five years ending December 31, 1875, there died in the years—

	1871.	1872.	1873.	1874.	1875.	TOTAL.
Under 1 year of age.........	7,994	9,791	8,678	8,279	8,540	43,282
From 1 to 2 years...........	(2,707*)	3,342	2,733	2,818	3,136	12,029
" 2 to 3 "	(1,179)	(1,514)	1,218	1,319	1,457	3,994
" 3 to 4 "	(648)	(938)	(929)	895	1,012	1,907
" 4 to 5 "	(443)	(603)	(624)	(645)	703	703

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* Numbers in parentheses to be canceled in the summation of totals in right-hand column.

By cancelling the lines of numbers of children that were not born within the limits of that five years' period, we have the numbers of deaths of the children whose birth was (probably) within said limits.

The total number of children who died during the five years, before attaining their fifth birthday, was 72,145, and of this number 43,282 were under one year of age at the time of death.

Of the total number of children that died under five years of age during the five years ending December 31, 1874, there were 61,245 who would have been included in the living population under five years of age, at that date, while of the children that died under five years of age during the five years ending December 31, 1875, there were 61,915 who would have been included in the living population to be enumerated as under five,—if they had not died.

As the errors of census enumerators cannot be eliminated after the official abstracts have been completed, no account is made of them. The records of age at time of death have no appreciable errors, because years, months and days of the deceased child's age are certified before burial.

The census enumeration in 1875 found 128,169 living children under five years of age.

There died in the five years ending in 1875, 61,915 children who were born during the quinquennial period next corresponding with those five years. The total enumerated living children and registered dead children, who were added by births in the city population in five years, amounted to 190,084.

The number of infants counted as having died during their first year in the five years' period, who, had they lived, would have been over five years old at the end of this period, and the number of infants enumerated as alive under one year of age at the time of the census, but who nevertheless subsequently died before attaining their first birthday, nearly balance each other, so that we are warranted in using the approximately correct census returns and the recorded deaths above given, as the total number of infants born alive in the five years. This aggregate of the living and the dead, whose birth-records should have been registered in the five years as above shown, numbers 190,084, or a yearly average of about 38,000 births.

The 128,169 children enumerated in the last census as being under five years of age, would constitute 12.30 per cent. of the total population of the city. The national census found only 111,205 children under five years of age in the city, or 11.80 per cent. of the total population. The ratio of annual increase by birth in our city population is apparently as great as in the State at large, but it is less than that for the whole United States, for the national census in 1870 found 14.3 per cent. of the population of the Union under five years of age, and reported high death-rates for that period of childhood in all the large cities.

The Birth-Rate.—The analysis of the records of mortality in the five years' interval between the last two census enumerations, and a comparison of these records with the enumerations themselves of children under five years of age, show that the newly-born have been added to the city population at the mean rate of more than 35,000 annually, or from 35 to 37 to every 1,000 inhabitants. The public registration of births in the Bureau of Vital Statistics shows that in 1874 there were 25,747 births recorded there, in 1875, 23,813, and in the five years ending with the latter, 115,132, or an average of 23,026 publicly registered births each year. As this public registry is based upon the *voluntary* returns which the medical and other professional attendants make to the Health Department, it falls below the number of births which are professionally attended. The 10,000 or more births, or fully 30 per cent. of the living infants which were not reported by medical attendants, and indeed which mostly *had no professional attendance*, constitute an important part of the poorer classes of city inhabitants, who especially need at least the heir-loom of a correct public registration of birth. Above all, the State needs complete records of all births within its boundaries, and it is due to the people, especially to the least enlightened classes, that the registration of births should be rendered as complete as possible by State authority, and by most available methods. It is already a noticeable fact in the experience of the Bureau of Vital Statistics in New York, that parents of foreign birth and of the thrifty middle classes in this city are generally more careful than other people in securing the birth registration of their children,—not omitting any portion of name or lineage. So great, indeed, is the desire for, and usefulness of, the birth-registry among the middle classes, and even among the poor, that the practicability of obtaining from the parents a complete record of the births of all the legitimate children no longer admits of doubt. Even the illegitimate may also be registered with sufficient

40	45	59	36	38	17	16	7	10	..	2	..	
	104		**74**		**33**		**17**		**2**			**1**
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ABSTRACT OF CENSUS OF THE CITY OF NEW YORK IN 1875 BY WARDS AGES, SEXES, NATIVITY Etc.

Wards	Total	Under 1 Year	1 to 2	2	3–	4	Total Under 5 Years	5 to 10	10–	15–	20	25	30–	35–	40–	45–	50–	55–	60–	65–	70–	75	80 90	90 100	100 and over
City, Total both Sexes	1,041,886	27,482	25,318	26,721	24,963	23,708	128,1[illegible]	108,1[illegible]	97,158	108,175	106,263	101,611	84,185	70,83[illegible]	58,[illegible]	40,276	31,104	23,508	18,192	9,892	6,021	3,117	1,868	200	36
First Ward, Total both Sexes	[illegible]	888	[illegible]	882	800	[illegible]	1,00[illegible]	1,084	1,008	1,401	[illegible]	1,412	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	101	74	[illegible]	[illegible]	2	[illegible]
Second Ward, Total both Sexes	1,018	[illegible]	14	[illegible]	17	19	61	68	41	[illegible]	[illegible]	[illegible]	141	[illegible]	[illegible]	[illegible]	41	[illegible]	[illegible]	41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Third Ward, Total both Sexes	[illegible]	45	[illegible]	[illegible]	[illegible]	[illegible]	278	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	101	[illegible]	[illegible]	11	[illegible]	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fourth Ward, Total both Sexes	[illegible]	197	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,977	2,284	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fifth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sixth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Seventh Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eighth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ninth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eleventh Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twelfth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Thirteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fourteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fifteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sixteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Seventeenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eighteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nineteenth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twentieth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twenty-first Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twenty-second Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twenty-third Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Twenty-fourth Ward, Total both Sexes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Compiled for Report of Bureau of Vital Statistics, for the year [illegible], under the direction of Dr. E. Harris.—Revised by the Superintendent of State Census.

completeness to secure the chief benefits of a perfect enumeration of births. The State has uses for complete birth-registration, the family and every group of kinspeople have joint interests in the social honor and heritage of every living member added by birth ; and to the helpless infant, its natural rights and the officially verified title to all that birthrights signify,—the public registration of birth and lineage as inscribed in the Bureau of Records—is a boon which parents should claim for their offspring, and which the State must provide for, as well as enforce. The neglect and the imperfections of birth registration arise from the ignorance and misconception of the persons who frame the laws and methods for this branch of registration. It is less a matter of expense or unwillingness than of forecast and common sense, for it is solely a matter of organization, method, and unceasing instruction ; and in the absence of both ecclesiastical and police methods of domiciliary surveillance which are maintained by State authority under monarchical governments, but which can never be applied in the United States, certainly it will be necessary to devise publicly acceptable methods, and to keep up a system of effective official notification and instruction to parents and professional attendants of children, to secure the timely completion of the certified record and public registration of every birth. The fact that in the State of New York, its inhabitants—nearly 5,000,000 in number, grouped in 1,000,000 of families, and claiming estates, real and personal, exceeding six thousand five hundred millions of dollars ($6,500,000,000) in value—wholly neglect the public registration of births, except in about one-fourth part of those families, which, by the aid of medical attendants and sanitary officers in New York and three or four other cities, have their births recorded, appears discreditable to the intelligence of the people and unworthy of a great State. The difficulties which are supposed to stand in the way of complete registration of the newly-born in all places in this State will disappear under any system that can be successfully applied in this city. Such a system will need to unite the wishes and interested efforts of the parents to the faithful methods of professional attendants and registering officers.

Distribution and Classification of the City Population, as exhibited by the Census, in June, 1875.—The latest revision of the census of 1875 presents some results which differ from those relating to the same classes of the population as given in the Ninth National Census in 1870. The most conspicuous of these differences relates to children under 5 years of age. The very careful analysis of the last census returns in this city by Colonel Seaton, under the direction of the Secretary of State, warrants the practical uses which we shall make of the classification and distribution officially certified in the Census Bureau at Albany. The increase of the city population by the birth of children who survive beyond their fifth year is the most conspicuous and pleasing fact to be noticed in the comparison of any of the columns of ages in these returns with those given in the census of 1870–71, or of 1865. The decrease now noticeable in the percentage of the foreign born comports with the obvious gains witnessed in the child population, as well as with the falling off in the foreign immigration and settlement.

The summary of the census, June, 1875, of the population by ages, sexes, and the distribution by wards in this city, is here presented in the form which the Superintendent of the Census Bureau at Albany has kindly furnished for us, and revised in November, 1876.*

The increase of that portion of the city population which, by the successive census enumerations in 1865 and 1875, was found under ten years of age, is shown in the following abstract:

	Total Population.	Under 5.	5 to 10.	PERCENTAGE.	
				Under 5.	Under 10.
Census of 1865.................	726,386	95,020	91,755	13.08	25.71
" 1870.................	942,292	111,205	(Not given.)	11.80	..
" 1875.................	1,041,886	128,169	109,150	12.30	22.77

The census of 1865 found 43.15 per cent. of the city inhabitants were of foreign birth; the census of 1870 found 44.47 per cent., and that for 1875 found 42.80 per cent.

The fact that far more than half of all the births in this city are of foreign parentage is well known; but the deficiency in registration of births is so great that the relative birth-rate in the foreign and the native portions of the population cannot be stated. The abstracts compiled by Dr. Nagle, the Deputy-Register, from the registers of births for 1874 and 1875, exhibit the fact that, out of the 48,560 births registered in this Bureau in these two years, 31,661 had an exclusive foreign parentage, and 33,751 of the mothers, and 36,374 of the fathers, were of foreign birth. The abstracts of the birth registration, and Dr. Nagle's notes upon them, will be found in a subsequent section of this report. The conclusion he expresses, after analyzing his well-kept records of the 48,560 births registered in these two years, is worthy of special attention, for he says that "no reliance should be placed on this branch of our statistics as representing even an approximation to the total number which occurred." We have ample evidence, from the census enumerations as already shown, to prove that there have been from 34,000 to 38,000 births each year since 1869.

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* See abstract of City Census, facing this page.

Still-births.—The number of infants born dead in 1874 was 2,277, and in 1875 the number was 2,274. This number of still-births is quite excessive when compared with the best kept records of births and deaths in foreign cities, but it expresses the usual rate for this class of cases in New York. Though not counted in the mortality registry, the still-born have thus for many years past been equal to 7.40 per cent. of all deaths it recorded; and if there are 36,000 infants born alive in this city annually, then there are from 5 to 6 still-born in every 100 births. The rate of still-births in the chief Continental cities ranges from 4 to 5 per cent. of all the births, but in well-ordered, rural populations, it is from 2½ to 3 per cent. of all. The fact that this careful recording of children dead at birth is conducted very efficiently and without offending the people in any manner, in this city, while in most other cities in America this delicate duty is incompletely performed, and in Great Britain wholly neglected, warrants the conclusion that no reason for omitting this branch of vital registration can be urged. The words of M. Quetelet concerning it apply with the same force and propriety in all countries: "*Les morts-nés dont l'existence équivoque semble appartenir autant aux annales de la vie qu'à celles de la mort.*"

The statistical abstracts from the records of still-births, as prepared by the Deputy-Register, present results which will be consulted with interest by physiologists and accoucheurs. The abstracts show, as no other record can so completely show, that mothers of foreign birth give to New York fully 70 per cent. of the city children, if those mothers suffer only their full proportion of the still-births; for out of 4,311 mothers whose nativity was certified, 3,091 were births of foreign mothers. The fact is noticeable that 2,314 of the dead-born were certified to have reached the ninth month of fœtal life ; also, that of the 4,471 whose sex was certified, 2,507 were male and 1,964 were female. The registered certificates concerning these dead-born children indicate the correctness and importance of the fact that the greater perils which may attend on the maternal travail with male offspring, and the acknowledged preponderance of births in mothers of foreign extraction who, from tradition and preference, employ midwives, should place the science and practice of midwifery and expert obstetrics beyond the intrusion of charlatanry, and bring the highest skill within the reach of all who bear children. Not a few of these 4,551 dead-born would have been saved alive by resources of obstetric skill, and the same is true of many a mother who perished for lack of such medical help. In 1874 and 1875 there were respectively 67 and 73 deaths of mothers in child-birth from accidents which the best obstetric skill usually prevents.

Marriages.—The mere convenience of having the public registration of marriage kept in the same offices where births and deaths are recorded, and the singularly irresponsible part which the affianced and newly wedded take in providing and legally verifying their marriage contract, will not be superseded by any adequate method of marriage registration until the marriage contracts are authenticated under provisions of the Code Civil as well as under the Code Ecclesiastical. The tabulated abstracts from the marriage registers show that in 1874 and 1875, 32,924 persons had the benefit of a public registration of their marriage. This number scarcely exceeds 70 per cent. of the marriages which, reasonably, must have occurred in the city during the two years.

It is justly due to the most active and faithful clergymen in this city, to mention in this place that their official certificates of the marriages they solemnize, are, with few exceptions, prepared and sent forward for public registration with scrupulous care ; nevertheless there is ample evidence that only about 65 per cent. of the marriages in the city thus find a registration, and those couples who go beyond this city, elsewhere in the State, to have their marriage solemnized, will have no official public registration of it, except it occur in one of the very few cities where municipal authorities have opened a marriage register. Such sources of failure and evasion of the duty of preparing and publicly registering the records of marriage are discreditable to the State.

Until there was a Marriage Register opened and official certificates required in the city of Brooklyn, as recently as 1866, the Marriage Register in this Bureau of Vital Statistics in New York was the only one in the State. There are now six other cities in the State which attempt to procure and register some form of public records of marriages and births. Experience now confirms the conclusion that the State will be constrained to provide for the obligatory certifying and public registration of marriage, births and deaths. Each of these signal epochs in the earthly history of human beings, requires a formal and exact record, which shall be made up and registered with uniform faithfulness in whatever town or city in the State these important events occur. It will before long appear that throughout the Federal Union these records of individuals and families will need to be recorded with equal faithfulness and uniformity in all the States, and in every city and town. The completeness of the forms of record adopted in each branch of registration in the Bureau of Vital Statistics in this city is quite satisfactory, and this single municipal Bureau has succeeded in giving a valuable example of excellence in its individual records, even of births and marriages, although dependent on the accuracy and faithfulness of voluntary certificates. This experience certainly indicates the fact that with the aid of simple and reasonable methods of verification of certain most essential elements of each record of birth, marriage and death, it will be found practicable in this city and throughout the State and the nation, to have the registration of vital statistics as perfect in kind as any country can exhibit. Such verification and exactness, however, will be attainable only under *obligatory* laws and regulations which will secure the *numerical completeness* at the same time that the duty of a full authentication is enforced. In our city and throughout the State and the Union, the registration of vital statistics has to depend upon an enlightened co-operation and support of the people in securing both the adoption of adequate laws and methods and the enforcement or general observance of them for the faithful and prompt registry of complete records of the facts and events essential to these statistics. No ecclesiastical surveillance and police methods are available in these free States. The *voluntary* methods, applicable to the professional attendants at the epochs and events to be certified for public registration, and the enlightened and self-interested concern and co-operation of the kindred of the persons to be registered, and the faithful enforcement of compliance with all that the laws require concerning such certification and registry, will have to be conjointly administered as an obligatory no less than a voluntary system.

The Health Department has been charged with the duty of the three branches of the registry of Vital Statistics in this city, and burdensome as this duty may be, its practical relations to the public health-service are of first importance. A most eminent writer and legislative counsellor on State Medicine has remarked that, " considered physically, the main object of a correct civil registration of births, deaths, and marriages is to aid in disclosing *the causes of disease*. Considered legally, the object is to provide the means of tracing descent and proving personal identity ; and considered politically it is to assist the government in arriving at correct conclusions with regard to measures of internal economy, taxation, employment, and commerce. As the world no longer affords an instance of the unanimous agreement of the people of any one country for one form of religion, governments can no longer prudently leave the registration of births, deaths, and marriages solely to the ministers of the State religion, if there be one. But the greatest care should be taken in carrying out a merely civil registration, to avoid anything like disrespect towards those sacred rites and solemnities which, however varied the forms in different Christian countries, hallow alike man's entrance upon this stage of existence, his departure from it, and his fulfillment of the divinely appointed condition for the succession of his race."

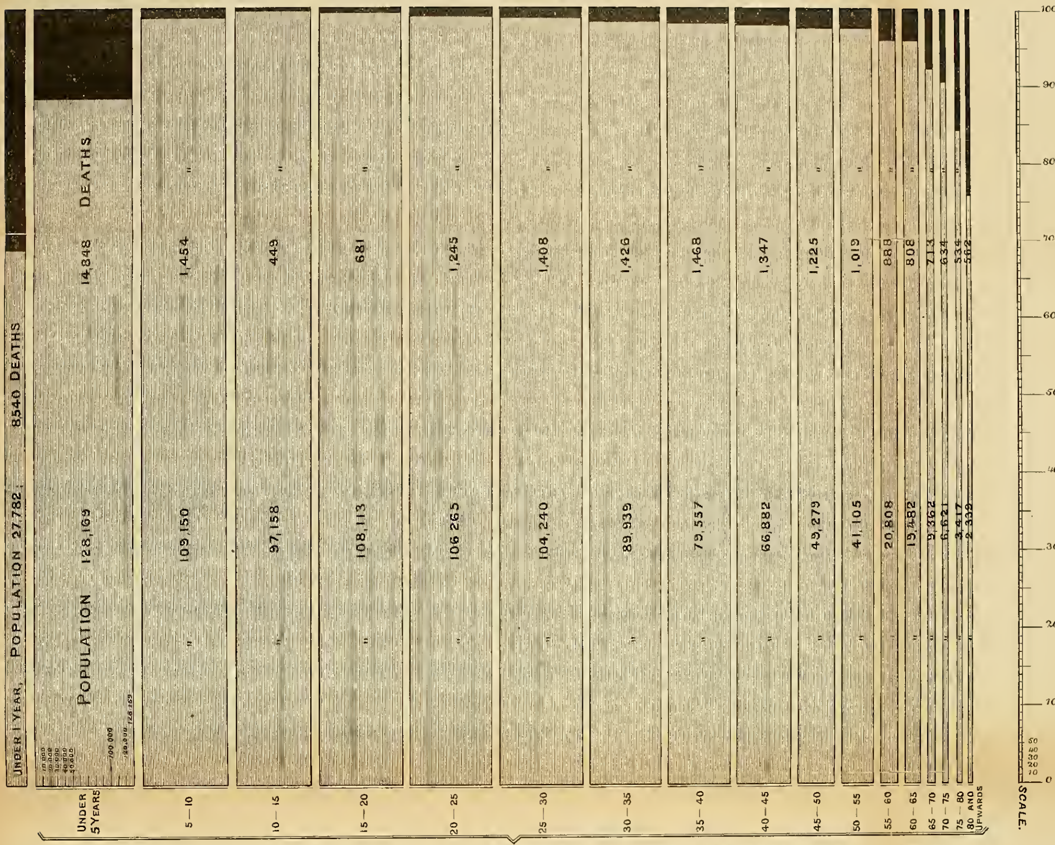
This view and these words were before the writer of this report when he organized the work of this Bureau, under the Health Department, in 1866, and they still impress its policy. They should eventually shape the methods of registration of Vital Statistics throughout the United States.

THE RECORDS OF MORTALITY.

In the year 1874 this city lost 28,727 of its inhabitants by death, and of this number 13,956 were under 5 years of age. In 1875 there were 30,709 deaths, of which 14,848 were under 5 years. The death of 1,665 from diphtheria in 1874, and 2,329 in 1875, and of which

THIS DIAGRAM SHOWS THE RATIO OF DEATHS TO TOTAL POPULATION IN AGE-PERIODS, IN 1875.

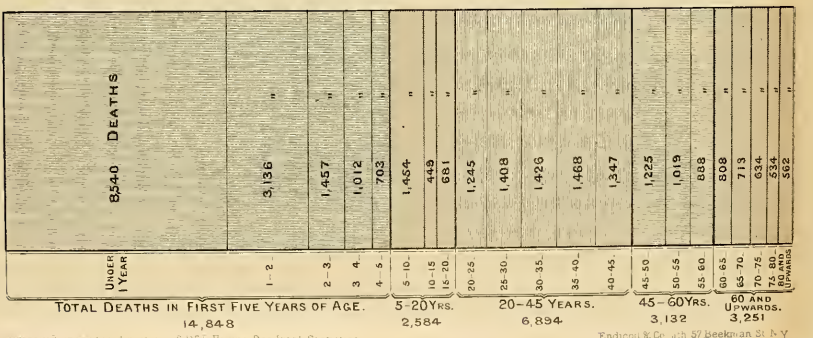
THE BLACKENED TOP OF EACH COLUMN MARKS THE RELATIVE MORTALITY.



THESE SEVENTEEN COLUMNS SHOW THE TOTAL POPULATION (CENSUS OF 1875: 1,041,886,) IN ITS DISTRIBUTION BY AGE-PERIODS.

THE FIELD OF THIS PARALLELOGRAM REPRESENTS THE TOTAL MORTALITY (30,709) IN THE YEAR 1875;

THE SUBDIVISIONS SHOW THE SHARE OF EACH AGE-PERIOD.



pared under the direction of Dr E. Harris, Reg. Vital Statistics

Endicott & Co. Lith 57 Beekman St. N. Y.

numbers 1,131 in 1874 and 1,690 in 1875 were children under 5 years of age, increased the annual death-toll of the child population very heavily. Small-pox was charged with 484 deaths in 1874, and 1,280 in 1875; and of these, 236 in the former and 598 in the latter year were of children under 5 years of age. The diarrhœal diseases of summer were charged with 3,569 deaths in 1874, and 3,738 in 1875; and of these, 3,227 in 1874 and 3,352 in 1875 were of children under 5 years of age. Membranous croup was the cause of 524 deaths of children under 5 years of age in 1874, and of 668 in 1875. It vied with diphtheria, and was a congener of that malady in such respects as to be interchangeably confounded with it in the diagnosis of these two diseases, respectively, in their advancing stages. Pneumonia, bronchitis, and congestion of the lungs were together charged with 3,603 deaths in 1874 and with 4,064 in 1875; and of these there were 1,945 deaths of children under 5 years of age in 1874 and 2,120 in 1875. These few maladies thus destroyed 7,063 children under 5 years of age in 1874 and 8,428 in 1875; 15,491 in the two years.

The ages of those who died, and the toll which every 1,000 of the living inhabitants in each quinquennial age-period of human life paid, are stated in the following abstract, and are correctly exhibited in the graphic diagram on the opposite page.

These death-rates in the subdivision of ages range from 307.39 deaths in every 1,000 (or 30.73 + per cent.), who are under 1 year old; 115.84 in every 1,000 (or 11.58 + per cent.) under 5 years of age, to only 4.62 in every 1,000 lives between 10 and 15 years; 6.29 in every 1,000 between 15 and 20; 18.45 (or 1.84 + per cent.) in every 1,000 between 35 and 40; and so fluctuating and increasing until 253.33 in every 1,000 of all who were found in the city between 90 and 100 years of age perished during the year.

The proportions which the number of inhabitants living in each of the enumerated periods of life bear to each other, and to the total population of this city, are shown in the diagram upon the opposite page. The percentage of deaths in the 1st, 2d and 3d years of infancy, the proportionate loss by the mortality-toll in the column representing all children under 5 years old, and the varying rates of mortality in succeeding periods of life, are shown in like manner.

Table showing the Number of Deaths in each Period of Life (*Census of* 1875), *and the Death-rate in the Population at each Age-period.*

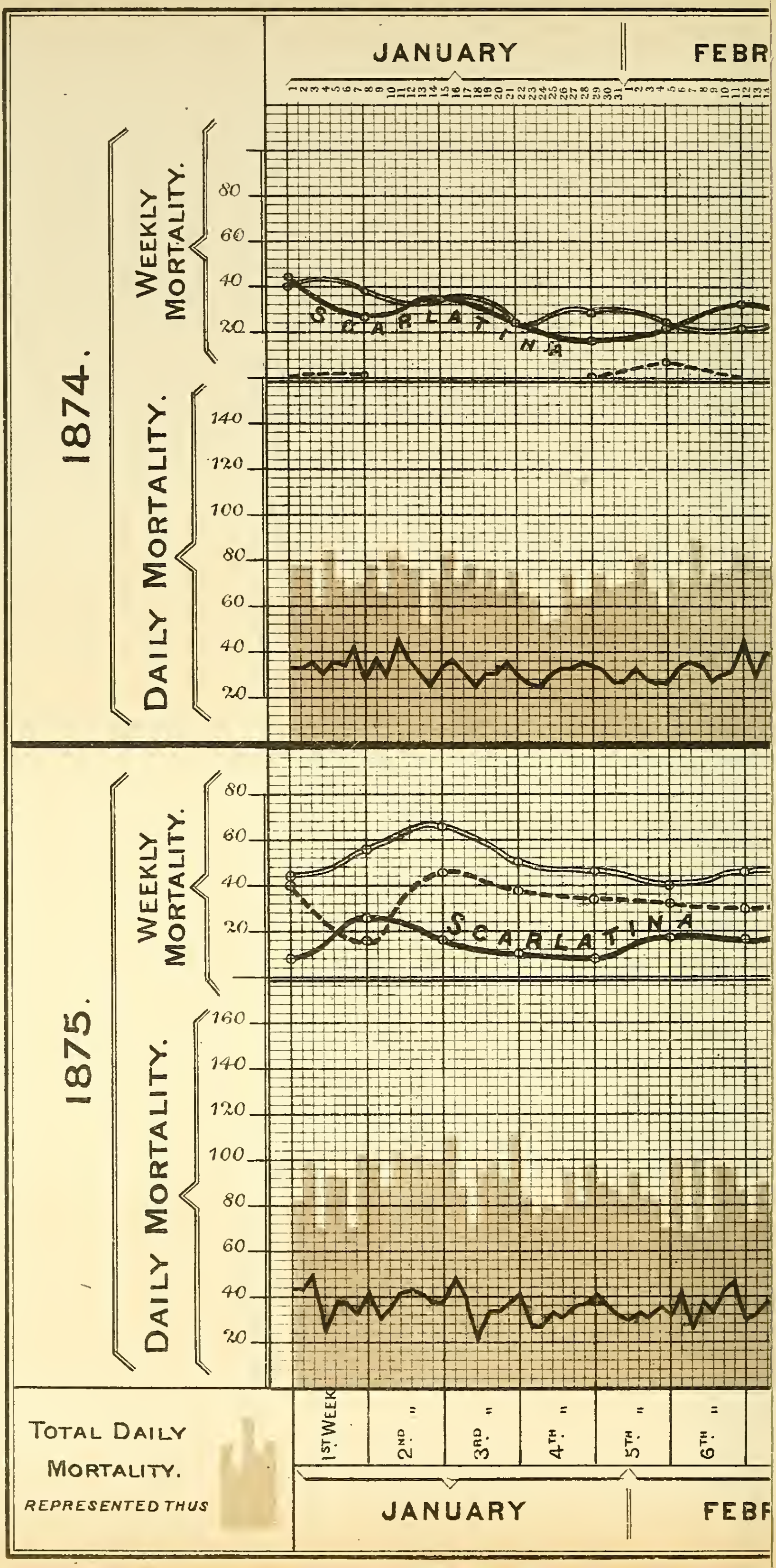
	NATIVITY.		COLORED.	UNDER 1 YEAR.	1 AND UNDER 2.	2—	3—
	United States.	Foreign.					
Total Deaths at each Age in 1875	20,744	9,965	401	8,540	3,136	1,457	1,012
Total Population (classified), Census of 1875	595,843	446,043	15,254	27,782	25,353	26,721	24,963
Death-rate (per 1,000) in each Age	34.81	22.34	26.37	307.39	123.69	54.52	40.53

	4—	TOTAL UNDER 5 YEARS.	5—	10—	15—	20—	25—
Total Deaths at each Age in 1875	703	14,848	1,454	449	681	1,245	1,408
Total Population (classified), Census of 1875	23,350	128,169	109,150	97,158	108,113	106,265	104,241
Death-rate (per 1,000) in each Age	30.10	115.84	13.32	4.62	6.29	11.71	13.50

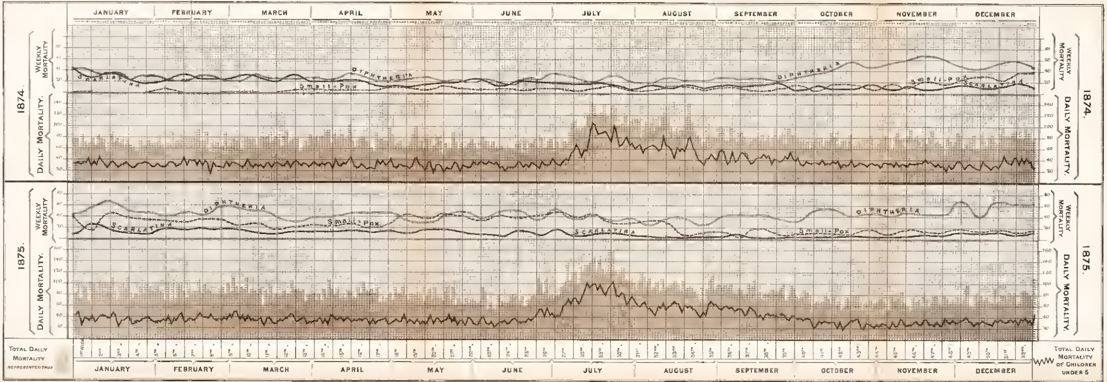
	30—	35—	40—	45—	50—	55—	60—
Total Deaths at each Age in 1875	1,426	1,468	1,347	1,225	1,019	888	808
Total Population (classified), Census of 1875	89,938	79,557	66,882	49,279	41,105	20,808	19,482
Death-rate (per 1,000) in each Age	15.85	18.45	20.13	24.85	24.79	42.67	41.47

	65—	70—	75—	80 TO 90.	90 TO 100.	100 AND UPWARDS.	TOTAL.
Total Deaths at each Age in 1875	713	634	534	470	76	16	30,709
Total Population (classified), Census of 1875	9,362	6,621	3,417	1,986	300	55	1,041,886
Death-rate (per 1,000) in each Age	76.15	95.75	156.27	236.65	255.03	290.90	29.47

STATIGRAPHIC VIEW OF DAILY MO



STATIGRAPHIC VIEW OF DAILY MORTALITY FROM ALL CAUSES AT ALL AGES, AND IN CHILDREN UNDER 5 YEARS OF AGE, IN 1874-1875; AND THE COURSE OF MORTALITY FROM DIPHTHERIA, SCARLATINA AND SMALL-POX IN THE CITY OF NEW YORK.



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The Deaths each Day in the Year.—The tables which are introduced here to give the daily readings of mortality will be used for reference in subsequent sections of this report; and the tables next following give the daily readings of various causes of death which have the greatest sanitary significance, together with the record of daily meteorological observations in 1874 and 1875. These tabulated abstracts and statigraphic charts convey their own explanations.

The names of the causes of death, as registered in 1874, amount to 437 in number, and in 1875 to 463. They comprise a few constant chief causes, and certain other frequent causes which fluctuate greatly and are dependent on widely variable external circumstances. The daily mortality from phthisis pulmonalis is presented in these charts as a type of the *constant* causes in the arithmetic of daily and yearly mortality, while the diarrhœal maladies are shown as the most widely fluctuating of causes, varying, as they do, from no fatality in particular days in the months of May and December, to 70 deaths on certain days in July. The variations of temperature and the attendant atmospheric humidity play the conspicuous parts in this daily and weekly record of the city mortality, and while in the crowded tenements of the poor, and in the treeless streets, the tropical heat and moisture of the New York midsummer serve as the *Tentator infantum*, which applies tests to the vitality of young children with a severity as trying as the Spartan infants suffered, the sudden and extreme rigor of winter snaps the silver cord of life in old age and in impaired lives of invalids in December, and the succeeding cold months, so as to largely increase the death-rate.

TABLE SHOWING TOTAL MORTALITY, AND THE DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE,

Each Day, for the Year ending December 31, 1874.

Day of Month.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.
First.	78	33	71	33	69	34	80	38	88	35	69	32	56	36	113	65	98	57	79	48	68	25	88	40
Second	78	36	83	28	78	34	83	33	66	28	58	30	72	31	110	68	100	60	75	32	76	34	83	38
Third	60	29	67	27	73	33	74	29	71	25	70	38	48	29	79	55	98	53	72	30	84	36	60	24
Fourth	84	36	59	27	75	29	83	35	75	32	81	33	60	38	96	61	74	34	70	40	84	34	68	29
Fifth	71	35	72	32	57	25	81	31	63	31	74	32	73	43	108	63	73	37	74	34	80	35	82	34
Sixth	67	43	68	36	74	32	91	36	64	29	74	37	69	39	99	66	98	58	62	33	62	28	62	32
Seventh	70	27	89	37	79	42	94	35	66	24	67	34	92	52	107	68	79	36	72	36	81	39	66	25
Eighth	78	39	70	27	77	31	69	21	72	27	74	32	105	56	92	63	73	40	79	35	90	30	62	24
Ninth	65	28	74	30	76	24	88	43	88	41	63	38	111	69	100	58	89	49	72	32	79	33	59	22
Tenth	84	46	74	31	77	33	77	31	100	46	60	27	95	56	100	60	89	54	81	42	78	33	85	40
Eleventh	79	36	83	46	65	28	83	29	63	34	64	29	95	44	117	86	82	50	67	31	64	27	75	31
Twelfth	76	29	82	28	79	33	85	35	75	29	60	19	97	58	122	66	75	41	76	34	83	35	67	29
Thirteenth	52	24	77	40	81	23	78	32	63	20	56	28	89	57	112	62	70	33	75	31	94	34	81	22
Fourteenth	71	33	77	37	80	35	83	41	77	36	63	27	121	87	97	59	74	36	90	39	73	33	84	29
Fifteenth	84	37	79	40	82	35	104	47	75	38	59	26	144	107	77	41	79	43	82	35	83	34	72	31
Sixteenth	71	31	77	29	71	25	74	30	56	15	55	29	139	101	98	64	83	44	89	40	74	35	68	26
Seventeenth	79	23	93	40	74	34	62	25	65	31	68	39	116	85	85	56	75	44	64	26	64	35	86	39
Eighteenth	69	29	74	27	81	36	72	27	81	34	69	35	118	87	94	61	84	52	74	33	79	43	97	51
Nineteenth	76	30	75	40	76	33	78	38	74	30	52	26	126	89	92	55	75	45	75	30	75	35	83	38
Twentieth	67	37	89	31	64	29	63	29	49	17	76	33	140	92	118	77	84	49	64	31	81	39	83	34
Twenty-first	75	31	49	12	82	30	73	21	66	26	57	25	120	81	141	84	63	30	86	43	92	32	73	33
Twenty-second	66	25	71	36	89	40	72	27	62	23	69	36	105	72	107	67	79	43	70	29	70	28	88	43
Twenty-third	63	24	63	27	72	24	63	25	62	23	70	33	137	103	86	55	85	42	62	31	75	35	89	46
Twenty-fourth	53	31	70	27	76	32	57	23	89	37	77	29	132	88	83	41	77	38	72	35	69	28	78	30
Twenty-fifth	54	33	63	26	79	40	88	43	72	35	62	24	101	65	80	39	84	39	70	33	67	29	91	47
Twenty-sixth	74	33	64	26	80	35	77	31	60	17	81	39	103	67	66	30	86	48	77	30	50	19	77	33
Twenty-seventh	64	35	88	38	55	28	78	40	71	31	60	30	106	74	72	42	69	41	76	28	82	32	95	46
Twenty-eighth	64	33	64	25	64	34	74	29	62	28	63	29	120	83	83	43	97	56	79	33	73	23	88	36
Twenty-ninth	73	31	..	..	73	32	74	33	61	26	75	31	99	65	78	52	84	42	84	34	66	28	90	38
Thirtieth	68	27	..	..	64	26	99	43	69	25	78	44	110	70	83	44	84	37	66	30	73	36	76	26
Thirty-first	69	27	..	..	84	31	..	..	77	39	..	..	93	60	80	38	..	..	69	34	..	..	80	28

TABLE SHOWING TOTAL MORTALITY, ALSO THAT OF CHILDREN UNDER FIVE YEARS OF AGE,

EACH DAY, IN THE YEAR ENDING DECEMBER 31, 1875.

DAY OF MONTH.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.	
	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.	Total Mortality.	Deaths under 5 years.
First	82	44	93	32	85	36	83	33	70	31	68	25	73	37	88	63	97	56	77	36	66	22	76	32
Second	99	50	83	30	111	49	70	31	92	36	65	25	76	44	106	59	97	53	73	39	70	30	65	35
Third	69	24	82	36	93	49	80	41	80	29	67	38	75	41	120	65	94	60	76	35	67	29	71	36
Fourth	93	39	69	32	83	34	68	27	81	32	93	42	95	60	111	69	97	61	88	39	65	27	91	43
Fifth	92	39	100	44	93	44	89	38	93	47	84	29	102	62	96	55	94	54	83	39	52	19	97	35
Sixth	70	32	67	26	88	30	73	23	78	27	54	26	133	74	109	58	98	59	79	37	78	34	57	32
Seventh	103	42	99	39	109	44	105	43	72	37	65	35	106	60	88	49	82	51	45	21	67	24	58	24
Eighth	98	29	71	32	81	33	90	43	82	32	54	21	119	74	94	41	79	55	66	25	68	25	81	32
Ninth	87	34	97	42	91	37	77	33	79	26	53	26	121	74	103	63	92	57	68	34	74	38	69	28
Tenth	103	42	96	48	86	31	91	36	84	38	77	31	98	62	86	55	89	53	66	30	85	35	80	34
Eleventh	98	43	86	29	82	34	71	41	73	26	67	30	130	76	107	68	78	42	68	33	65	24	69	32
Twelfth	101	42	73	32	91	40	77	30	74	33	66	35	121	86	92	52	82	46	77	31	58	25	76	29
Thirteenth	98	37	89	39	56	22	74	39	67	26	65	26	150	104	94	59	100	60	73	30	50	27	67	28
Fourteenth	99	37	78	33	86	37	85	39	77	33	67	29	132	92	98	61	94	55	65	32	74	32	65	25
Fifteenth	110	49	86	33	77	40	85	29	90	45	80	35	136	98	102	69	106	50	76	32	67	37	90	37
Sixteenth	87	41	85	40	93	30	75	34	70	25	75	38	144	101	103	64	73	39	61	19	71	28	66	32
Seventeenth	73	20	106	48	74	26	74	31	92	39	77	31	121	91	103	64	84	46	69	35	59	27	68	37
Eighteenth	94	35	82	38	80	29	92	38	76	39	69	28	141	101	86	47	71	34	54	17	77	35	79	33
Nineteenth	99	35	97	40	77	36	82	32	76	29	77	32	125	89	104	62	81	45	60	25	70	37	78	31
Twentieth	91	37	88	36	77	32	101	38	68	33	59	29	116	78	91	58	82	48	76	31	57	27	72	32
Twenty-first	110	41	85	46	85	36	86	36	85	35	72	38	126	89	96	62	83	42	71	36	66	29	84	39
Twenty-second	83	27	80	37	76	39	85	26	93	47	71	31	154	98	91	55	89	46	75	35	77	24	77	32
Twenty-third	74	27	81	32	80	46	89	39	70	29	79	37	155	105	85	53	86	40	78	38	80	34	84	38
Twenty-fourth	80	33	78	38	103	43	82	27	93	41	79	44	122	77	79	46	86	44	80	37	62	24	61	26
Twenty-fifth	77	31	87	32	89	30	91	34	62	24	110	54	116	76	66	39	92	48	66	21	61	25	69	39
Twenty-sixth	93	36	92	40	89	33	67	34	72	34	101	55	122	85	94	50	100	45	50	19	79	40	86	34
Twenty-seventh	81	37	79	33	85	36	75	35	64	34	83	39	127	83	68	40	69	37	62	30	73	32	87	43
Twenty-eighth	98	41	00	47	89	44	67	40	62	21	108	58	106	60	89	61	77	34	67	29	64	28	84	29
Twenty-ninth	89	35	.	..	65	26	73	27	74	40	73	41	106	69	108	70	96	44	69	26	70	36	79	39
Thirtieth	86	32	..	..	78	31	84	27	66	38	80	48	108	78	114	63	91	43	57	20	68	31	72	23
Thirty-first	84	29	..	..	80	29	..	..	71	28	..	..	101	72	90	64	..	..	65	29	..	..	109	46

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure.

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
January 1....	78	17	..	9	9	3	33	43	32	38.6	11	57	30.232
“ 2....	78	23	4	9	9	4	36	42	36	39.0	6	80	30.192
“ 3....	60	31	1	10	10	3	29	43	38	39.3	5	84	30.218
“ 4....	84	23	1	13	10	5	36	58	40	52.0	18	80	30.122
“ 5....	71	17	..	10	7	6	35	59	33	41.0	26	73	30.274
“ 6....	67	17	1	6	8	2	43	40	32	37.0	8	83	30.212
“ 7....	70	14	..	9	5	4	27	56	39	52.6	17	88	29.715
“ 8....	78	18	3	8	5	4	39	53	34	43.0	19	75	29.592
“ 9....	65	19	..	8	4	7	28	51	32	43.6	19	59	29.673
“ 10....	85	20	2	7	9	4	46	48	38	40.3	10	58	29.565
“ 11....	79	24	2	10	9	5	36	48	31	36.0	17	42	29.806
“ 12....	76	21	3	20	4	5	29	33	29	30.3	4	75	30.194
“ 13....	52	9	1	9	4	3	24	36	24	28.6	12	73	30.289
“ 14....	71	25	1	8	9	7	33	30	22	26.6	8	68	29.735
“ 15....	84	18	2	14	9	2	37	22	14	17.0	8	75	29.758
“ 16....	71	14	2	10	2	5	31	22	10	14.3	12	86	29.981
“ 17....	79	20	4	14	6	2	23	36	13	22.6	23	69	30.404
“ 18....	69	15	2	15	4	3	29	43	20	29.3	23	74	30.446
“ 19....	76	20	1	17	7	7	30	46	30	38.0	16	73	29.946
“ 20....	67	16	2	6	5	3	37	39	24	29.0	15	52	30.290
“ 21....	75	15	1	9	7	2	31	43	27	38.3	16	63	30.220
“ 22....	66	13	2	18	7	2	25	51	39	47.0	12	81	29,951
“ 23....	63	20	2	8	6	4	24	63	35	50.6	28	74	29.822
“ 24....	53	15	..	3	6	..	31	35	25	31.3	10	65	30.203
“ 25....	54	15	..	6	5	3	33	26	15	20.3	11	62	30.390
“ 26...	74	20	..	9	7	3	33	33	12	21.0	21	66	30.386
“ 27....	64	12	1	7	3	3	35	43	28	37.0	15	89	29,959
“ 28....	64	16	1	8	9	2	33	48	30	40.3	18	78	29.666
“ 29....	73	18	4	6	4	4	31	39	26	32.3	13	83	30.064
“ 30....	68	13	..	13	5	2	27	39	18	21.6	21	53	30.339
“ 31....	69	19	..	15	7	7	27	25	16	19.0	9	71	30.219
February 1....	71	19	..	14	6	5	33	19	6	14.0	13	58	30,525
“ 2....	83	20	3	14	5	2	28	24	3	19.6	21	72	30,463

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

DAY BY DAY, IN THE YEAR 1874, WITH THE DAILY RECORD OF MEAN TEMPERATURE AND MEAN BAROMETRIC PRESSURE—(*Continued*).

DATE.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
February 3....	67	19	1	12	6	1	27	34	19	27.0	15	60	29.832
" 4....	59	8	..	9	6	1	27	32	28	30.0	4	78	30.024
" 5....	72	24	2	14	7	6	32	30	18	23.6	12	60	30.337
" 6....	68	18	2	8	3	5	36	31	14	22.0	17	60	30.241
" 7....	89	20	1	15	10	5	37	22	13	17.6	9	54	29.916
" 8....	70	17	..	13	5	5	27	33	16	25.6	17	65	30.250
" 9....	74	13	1	17	7	2	30	35	18	28.3	17	73	29.993
" 10....	74	17	..	11	4	4	31	29	21	24.6	8	55	29.730
" 11....	83	26	3	10	7	4	46	33	22	28.3	11	49	29.802
" 12....	82	23	2	7	7	1	28	37	22	30.0	15	72	30.093
" 13....	77	26	1	13	13	5	40	50	30	44.6	20	75	29.874
" 14....	77	24	1	11	8	5	37	53	39	42.6	14	46	30.006
" 15....	79	23	2	11	11	5	40	44	30	37.6	14	55	30.047
" 16....	77	7	..	17	2	2	29	47	30	37.3	17	71	29.641
" 17....	93	15	3	11	2	4	40	31	19	25.6	12	87	29.907
" 18....	74	11	..	10	4	2	27	36	16	25.6	20	69	30.226
" 19....	75	25	1	10	13	4	40	49	25	36.6	24	69	30.158
" 20....	89	20	2	16	8	4	31	48	39	45.6	9	69	29.919
" 21....	49	8	..	9	..	4	12	51	39	44.6	12	76	29,979
" 22....	71	19	2	13	7	4	36	46	39	41.0	7	82	30.066
" 23....	63	11	2	12	4	1	27	72	36	53.3	36	60	29.776
" 24....	70	18	1	10	4	4	27	38	29	32.3	9	52	30.373
" 25....	63	14	1	11	2	4	26	32	24	26.0	8	70	30.137
" 26....	64	19	..	9	9	3	26	33	22	27.6	11	86	30.156
" 27....	88	23	2	17	8	6	38	38	25	30.6	13	73	30.039
" 28....	64	13	1	16	4	2	25	39	28	33.6	11	65	30.149
March 1....	69	18	1	14	6	5	34	47	27	39.0	20	79	30.021
" 2....	78	22	1	12	4	5	34	55	36	45.6	19	71	30.018
" 3....	73	21	4	11	4	5	33	56	37	47.0	19	70	29.911
" 4....	75	22	1	8	6	4	29	64	33	50.3	31	63	29.567
" 5....	57	12	..	9	2	4	25	45	30	37.6	15	50	30.181
" 6....	74	22	..	9	11	6	32	36	27	30.0	9	70	30.251
" 7....	79	15	1	10	8	2	42	40	30	33.6	10	79	29.706

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
March 8......	77	18	1	10	8	4	31	38	30	32.0	8	79	29.563
" 9......	76	18	..	15	6	2	24	30	22	26.6	8	78	29.549
" 10......	77	20	1	9	4	3	23	30	22	26.6	8	68	29.423
" 11......	65	18	1	9	4	7	28	31	21	27.3	10	70	29.498
" 12......	79	21	..	12	6	2	33	31	16	23.6	15	59	29.497
" 13......	81	12	1	17	6	2	23	22	14	18.6	8	61	29.663
" 14......	80	21	1	18	5	3	35	36	21	29.0	15	69	29.977
" 15......	82	22	2	6	9	..	35	42	25	33.6	17	70	30.256
" 16......	71	11	2	14	2	3	25	44	32	38.6	12	62	30.337
" 17......	74	21	4	15	6	5	34	49	33	41.0	16	89	30.158
" 18......	81	22	1	12	8	5	36	58	42	49.6	16	88	29.965
" 19......	76	15	1	8	3	6	33	61	47	54.6	14	80	29.614
" 20......	64	12	..	11	6	3	29	55	37	42.0	18	61	29.875
" 21......	82	25	..	15	9	7	30	52	34	45.6	18	51	29.906
" 22......	89	20	1	13	1	7	40	49	43	44.0	6	54	29.688
" 23......	72	17	2	11	3	1	24	44	19	28.6	25	66	29.948
" 24......	76	15	2	10	3	6	32	29	16	23.3	13	58	30.243
" 25......	79	22	5	10	9	2	40	49	26	40.3	23	68	30.115
" 26......	80	17	1	11	4	1	35	58	40	50.0	18	59	29.772
" 27......	55	15	..	1	3	4	28	50	30	39.6	20	58	29.959
" 28......	64	9	2	14	1	2	34	44	33	39.0	11	61	29.907
" 29......	73	18	1	11	4	3	32	45	31	38.6	14	53	30.072
" 30......	64	17	3	11	4	2	26	53	32	44.3	21	59	29.896
" 31......	84	17	..	20	8	3	31	42	27	31.3	15	54	29.962
April 1......	80	30	2	14	8	5	38	34	25	29.3	9	59	30.111
" 2......	83	14	..	13	7	4	33	44	29	39.0	15	61	29.906
" 3......	74	13	..	14	3	3	29	47	36	40.6	11	68	29.761
" 4......	83	25	1	12	8	3	35	47	20	29.0	27	65	29.919
" 5......	81	13	2	14	4	..	31	38	20	32.6	18	59	30.184
" 6......	91	21	3	16	6	4	36	55	34	45.3	21	68	29.880
" 7......	94	23	5	11	3	4	35	51	37	43.3	14	66	29.885
" 8......	69	12	1	13	4	3	21	57	40	47.0	17	70	29.916
" 9......	88	20	2	12	8	2	43	42	36	40.6	6	77	29.854

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
April 10........	77	20	..	13	12	2	31	43	33	38.3	10	67	29.615
" 11........	83	20	..	16	7	5	29	57	26	41.0	31	57	29.906
" 12........	85	20	3	14	8	5	35	35	22	28.0	13	71	30.344
" 13........	78	16	..	12	5	3	32	46	22	36.6	24	65	30.431
" 14........	83	22	1	13	12	2	41	64	33	52.3	31	70	30.099
" 15........	104	29	3	11	6	4	47	64	46	58.0	18	71	29.750
" 16........	74	17	1	6	5	3	30	56	38	45.0	18	50	30.018
" 17........	62	20	1	12	7	4	25	45	34	37.3	11	61	30.081
" 18........	72	7	1	12	2	..	27	54	33	43.3	21	51	30.311
" 19........	78	19	2	8	6	4	38	54	36	48.3	18	54	30.221
" 20........	63	16	1	7	5	2	29	46	39	40.6	7	85	29.797
" 21........	73	16	2	14	5	3	21	54	40	44.6	14	69	29.756
" 22........	72	19	2	13	6	1	27	50	38	46.0	12	60	29.970
" 23........	63	9	..	14	4	2	25	46	39	42.0	7	87	29.784
" 24........	57	12	3	9	1	2	23	57	38	50.6	19	57	30.034
" 25........	88	36	4	15	10	2	43	48	36	38.6	12	75	29.882
" 26........	77	15	1	16	4	1	31	42	32	39.3	10	59	29.505
" 27........	78	17	2	10	3	1	40	54	38	44.6	16	53	29.976
" 28........	74	16	2	9	4	2	29	44	31	35.3	13	78	29.971
" 29........	74	15	..	15	5	2	33	38	32	34.6	6	86	29.669
" 30........	99	22	2	17	9	2	43	51	32	42.3	19	56	29.677
May 1........	88	20	2	11	10	..	35	61	41	50.0	20	52	29.513
" 2........	66	12	..	12	3	..	28	52	37	46.0	15	53	29.647
" 3........	71	15	2	14	4	3	25	62	33	49.6	29	51	30.020
" 4........	75	18	1	8	4	1	32	62	43	55.6	19	50	29.941
" 5........	63	16	..	14	3	4	31	60	45	52.0	15	53	29.602
" 6........	64	17	1	11	3	1	29	64	41	53.0	23	53	29.739
" 7........	66	16	2	10	6	4	24	50	38	45.0	12	50	29.962
" 8........	72	18	3	12	8	2	27	69	41	57.0	28	57	29.912
" 9........	88	19	1	8	5	1	41	82	52	70.6	30	47	29.837
" 10........	100	22	1	19	3	2	46	90	52	79.3	38	40	29.866
" 11........	63	15	4	4	2	4	34	57	52	53.0	5	58	30.264
" 12........	75	17	..	12	5	1	29	57	40	52.3	17	64	30.320

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
May 13	63	12	..	10	3	1	20	77	47	65.3	30	62	30.010
" 14	77	18	..	14	5	1	36	78	62	69.0	16	57	29.908
" 15	75	27	3	12	4	4	38	62	48	54.6	14	63	30.026
" 16	56	10	4	8	4	1	15	63	48	57.0	15	78	29.671
" 17	65	25	4	8	5	2	31	73	57	62.3	16	60	29.776
" 18	81	20	4	17	7	3	34	61	54	56.3	7	83	29.751
" 19	74	17	2	11	3	7	30	66	45	57.3	21	47	29.835
" 20	49	5	1	7	1	..	17	64	52	57.0	12	61	29.835
" 21	66	14	1	10	3	4	26	61	49	51.6	12	75	29.683
" 22	62	15	3	14	7	3	23	65	48	57.3	17	43	29.834
" 23	62	8	2	12	..	3	23	71	49	60.0	22	50	29.990
" 24	89	15	2	16	6	1	37	66	55	58.6	11	73	29.930
" 25	72	17	3	13	3	3	35	64	55	59.3	9	84	29.595
" 26	60	11	2	12	1	3	17	67	53	59.0	14	60	29.701
" 27	71	21	2	12	8	4	31	79	52	65.6	27	57	29.942
" 28	62	20	2	6	7	3	28	73	57	64.3	16	64	29.986
" 29	61	20	4	10	3	5	26	79	57	68.0	22	61	30.025
" 30	69	19	2	13	4	4	25	79	58	67.3	21	70	29.976
" 31	77	18	3	10	4	3	39	77	60	70.0	17	67	29.668
June 1	69	20	3	10	5	5	32	73	53	65.3	20	59	29.571
" 2	58	17	..	10	6	2	30	68	49	60.3	19	53	30.045
" 3	70	16	3	10	6	2	38	63	55	60.0	8	63	30.025
" 4	81	14	2	17	2	2	33	67	59	63.0	8	77	29.961
" 5	74	15	2	6	6	..	32	74	62	67.3	12	77	29.951
" 6	74	22	3	9	7	3	37	80	62	69.0	18	81	29.885
" 7	67	16	3	12	4	3	34	82	66	72.6	16	78	29.756
" 8	74	21	4	9	5	2	32	90	66	77.3	24	59	29.644
" 9	63	16	4	7	3	2	38	80	69	75.0	11	61	29.713
" 10	60	15	2	8	1	1	27	82	69	74.3	13	50	29.896
" 11	64	19	4	9	3	2	29	72	60	62.6	12	83	29.950
" 12	60	21	6	8	3	2	19	83	59	71.3	24	64	29.719
" 13	56	17	4	3	1	4	28	68	57	61.3	11	62	30.009
" 14	63	14	4	16	1	2	27	72	53	63.0	19	52	30.185

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
June 15........	59	20	4	6	5	3	26	80	57	70.6	23	45	30.175
“ 16........	55	20	6	7	6	3	29	75	65	70.3	10	59	30.023
“ 17........	68	22	3	5	4	6	39	79	67	69.0	12	71	29.716
“ 18........	69	23	6	12	4	4	35	74	65	69.3	9	53	29.791
“ 19........	52	18	4	4	6	3	26	71	56	67.0	15	60	29.917
“ 20........	76	22	6	11	4	3	33	64	54	60.6	10	73	30.072
“ 21........	57	20	4	9	5	3	25	81	60	68.3	21	65	30.026
“ 22........	69	24	7	8	3	2	36	86	60	74.3	26	57	29.979
“ 23........	70	25	8	10	1	3	33	91	70	80.6	21	54	29.802
“ 24........	77	23	10	10	2	1	29	79	64	73.6	15	42	29.858
“ 25........	62	22	4	10	5	3	24	86	60	74.3	26	41	29.816
“ 26........	81	21	4	10	7	5	39	83	65	74.0	18	63	29.604
“ 27........	60	26	10	6	4	2	30	83	64	71.3	19	58	29.778
“ 28........	63	22	6	9	5	3	29	91	66	79.3	25	58	29.684
“ 29........	75	25	9	10	8	4	31	98	72	82.3	26	63	29.615
“ 30........	78	28	9	9	5	1	44	83	66	75.3	17	61	29.814
July 1........	56	19	9	7	5	..	36	83	62	73.0	21	57	29.993
“ 2........	72	25	4	10	7	4	31	80	68	73.0	12	72	29.876
“ 3........	48	19	11	4	5	..	29	76	61	69.3	15	62	29.903
“ 4........	60	25	16	4	3	3	38	76	58	68.3	18	82	29.805
“ 5........	73	30	19	13	4	2	43	70	62	67.0	8	69	29.800
“ 6........	69	21	7	12	4	3	39	80	61	67.0	19	60	30.051
“ 7........	92	37	17	12	6	3	52	82	60	72.3	22	62	29.943
“ 8........	105	41	25	15	6	1	56	91	67	80.0	24	56	29.754
“ 9........	111	53	35	10	4	3	69	85	71	77.0	14	67	29.811
“ 10........	95	48	34	10	3	2	56	86	69	75.0	17	85	29.804
“ 11........	95	46	25	11	4	4	44	82	69	73.0	13	87	29.889
“ 12........	97	49	31	11	3	1	58	85	69	75.0	16	77	29.968
“ 13........	89	47	32	4	3	2	57	81	70	75.3	11	58	30.011
“ 14........	121	66	50	5	5	4	87	87	68	78.0	9	54	30.112
“ 15........	144	95	79	9	5	1	107	93	72	82.6	21	55	29.932
“ 16........	139	82	60	10	6	..	101	86	68	75.0	18	65	29.786
“ 17........	116	68	56	9	4	3	85	80	62	71.3	18	54	29.951

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
July 18......	118	74	59	7	4	..	87	85	63	74.6	22	51	30.082
" 19......	126	75	52	16	7	5	89	84	68	76.6	16	55	30.156
" 20......	140	84	66	8	1	1	92	90	68	76.6	22	66	30.005
" 21......	120	67	46	9	6	2	81	79	69	72.6	10	67	29.933
" 22......	105	59	46	6	4	3	72	80	65	74.0	15	53	29.972
" 23......	137	80	66	12	6	..	103	86	65	75.6	21	47	29.993
" 24......	132	72	56	14	5	2	88	83	67	74.6	16	47	30.020
" 25.....	101	50	38	11	5	..	65	81	65	74.0	16	58	30.056
" 26......	103	65	49	3	1	2	67	81	69	74.3	12	65	29.999
" 27......	106	58	49	7	5	1	74	82	70	74.3	12	65	29.874
" 28......	120	67	55	9	2	..	83	81	70	75.3	11	67	29.874
" 29......	99	50	37	8	3	1	65	73	66	70.0	7	85	29.815
" 30......	110	60	43	10	5	4	70	81	61	72.0	20	47	29.888
" 31......	93	45	33	8	1	1	60	84	64	75.6	20	53	29.804
August 1......	113	57	45	5	3	3	65	86	66	74.6	20	66	29.583
" 2......	110	68	50	9	4	3	68	79	62	69.6	17	56	29.642
" 3......	79	41	32	11	2	1	55	72	57	64.0	15	56	29.903
" 4......	96	50	36	10	4	..	61	71	55	66.3	16	55	30.058
" 5......	108	49	32	9	3	..	63	74	59	68.0	15	54	30.030
" 6......	99	48	40	9	3	2	66	81	59	70.6	22	52	29.989
" 7......	107	55	45	8	2	..	68	80	66	71.0	14	64	29.940
" 8......	92	51	36	10	6	3	63	71	64	68.0	7	88	29.689
" 9......	100	49	34	11	5	1	58	74	65	70.0	9	68	29.671
" 10......	100	52	33	11	3	4	60	84	67	77.0	17	52	29.807
" 11......	117	63	41	8	10	1	86	87	70	78.0	17	56	29.929
" 12......	122	63	42	17	6	..	66	84	69	77.0	15	64	29.918
" 13......	112	50	39	16	3	1	62	84	67	75.0	17	67	29.835
" 14......	97	39	24	9	7	..	59	72	66	68.6	6	70	29.877
" 15......	77	34	25	10	3	2	41	76	62	69.0	14	60	29.921
" 16.....	98	58	37	9	3	4	64	80	63	71.0	17	57	30.054
" 17......	85	38	24	7	1	2	56	78	61	70.0	17	59	30.077
" 18......	94	44	30	9	7	2	61	86	60	74.3	26	51	29.966
" 19......	92	48	32	12	5	2	55	81	62	72.3	19	49	30.100

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
August 20....	118	71	41	6	9	2	77	91	67	81.0	24	53	29.912
" 21....	141	68	53	11	5	2	84	90	73	82.3	17	50	29.834
" 22....	107	60	44	6	5	..	67	77	62	66.6	15	69	29.831
" 23....	86	48	34	6	2	2	55	68	55	62.0	13	55	29.931
" 24....	83	34	26	15	3	1	41	73	60	67.3	13	61	29.903
" 25....	80	26	16	14	1	1	39	69	58	65.3	11	54	30.091
" 26....	66	17	10	15	3	1	30	70	57	63.6	13	52	30.166
" 27....	72	36	20	7	9	3	42	73	55	64.3	18	51	30.115
" 28....	83	34	19	15	6	1	43	74	58	65.3	16	54	30.040
" 29....	78	34	20	13	5	2	52	77	57	66.3	20	56	29.907
" 30....	83	32	20	12	4	2	44	80	56	67.3	24	55	29.854
" 31....	80	40	17	12	3	3	38	79	60	72.0	19	57	29.899
September 1....	98	46	30	11	2	2	57	80	65	70.6	15	45	30.010
" 2....	100	46	28	11	6	1	60	85	64	75.0	21	45	29.971
" 3....	98	45	26	13	3	1	53	88	65	75.6	23	47	29.899
" 4....	74	28	13	11	6	1	34	67	56	62.0	11	64	30.185
" 5....	73	34	18	11	3	2	37	74	62	68.3	12	67	30.210
" 6....	98	38	28	10	3	2	58	80	65	71.6	15	70	30.016
" 7....	79	36	20	14	4	1	36	83	63	72.6	20	48	29.942
" 8....	73	34	16	12	7	1	40	83	61	71.3	22	53	29.896
" 9....	89	30	17	13	3	1	49	78	62	68.6	16	57	30.025
" 10....	89	45	23	8	7	1	54	88	61	75.0	27	46	29.924
" 11....	82	43	23	8	4	..	50	90	69	78.3	21	50	29.855
" 12....	75	24	14	6	4	2	41	74	62	67.3	12	57	30.029
" 13....	70	29	20	13	2	1	33	74	62	67.0	12	60	30.217
" 14....	74	33	13	10	9	4	36	72	64	67.6	8	71	30.199
" 15....	79	31	15	8	2	4	43	74	63	69.3	11	77	30.072
" 16....	83	35	19	9	4	3	44	70	65	67.6	5	80	30.020
" 17....	75	34	23	7	4	3	44	67	63	65.0	4	85	30.056
" 18....	84	45	26	10	5	5	52	67	61	63.3	6	94	30.071
" 19....	75	32	18	9	6	..	45	67	61	64.0	6	81	30.096
" 20....	84	36	23	14	2	3	49	66	57	62.3	9	81	29.935
" 21....	63	30	13	11	3	4	30	65	52	58.6	13	58	30.071

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
September 22...	79	30	17	10	3	..	43	68	48	59.0	20	60	30.158
" 23...	85	30	18	15	3	4	42	74	53	64.0	21	62	30.150
" 24...	77	33	19	15	7	..	38	75	58	66.6	17	67	30.183
" 25...	84	29	13	12	6	1	39	78	60	68.6	18	69	30.131
" 26...	86	31	16	11	2	2	48	84	61	70.6	23	69	30.031
" 27...	69	24	13	9	4	..	41	68	60	64.0	8	77	29.941
" 28...	97	43	26	16	8	..	56	67	55	62.6	12	69	29.743
" 29...	84	32	16	10	5	3	42	63	56	60.3	7	88	29.433
" 30...	84	33	17	14	6	..	37	63	49	54.6	14	55	29.523
October 1...	79	39	19	13	8	2	48	62	46	54.3	16	55	29.808
" 2...	75	26	14	15	3	..	32	69	52	61.0	17	57	29.695
" 3...	72	22	9	12	4	1	30	66	48	56.0	18	57	30.011
" 4...	70	25	11	8	8	3	40	58	46	53.3	12	56	30.178
" 5...	74	22	3	16	8	1	34	56	44	51.0	12	62	30.176
" 6...	62	21	11	6	4	2	33	61	47	56.3	14	63	30.086
" 7...	72	28	11	9	6	3	36	68	57	62.3	11	70	30.124
" 8...	79	29	11	9	9	2	35	65	56	60.3	9	73	29.933
" 9...	72	22	10	10	3	3	32	68	54	61.6	14	64	29.809
" 10...	81	32	11	17	8	..	42	69	56	64.0	13	63	29.635
" 11...	67	24	10	12	4	..	31	67	54	61.0	13	56	29.756
" 12...	76	28	11	14	10	1	34	58	44	51.3	14	52	29.940
" 13...	75	22	7	10	7	..	31	47	39	42.3	8	57	30.132
" 14...	90	33	10	18	11	2	39	47	38	42.0	9	60	30.214
" 15...	82	26	5	11	9	..	35	60	36	48.6	24	59	30.254
" 16...	89	31	7	14	16	..	40	68	45	56.0	23	51	30.070
" 17...	64	24	7	11	6	..	26	67	48	59.0	19	57	29.794
" 18...	74	25	9	14	6	3	33	57	43	50.3	14	68	29.606
" 19...	75	25	5	16	13	2	30	55	41	47.0	14	53	29.855
" 20...	64	27	6	7	11	2	31	66	43	54.6	23	56	30.058
" 21...	86	32	4	12	13	2	43	62	50	56.3	12	61	30 236
" 22...	70	21	3	14	11	..	29	69	48	57.6	21	65	30.232
" 23...	62	26	9	4	9	1	31	59	49	54.0	10	64	30.315
" 24...	72	23	5	13	6	4	35	61	51	55.0	10	75	30.397

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
October 25....	70	21	7	9	8	2	33	66	51	57.6	15	67	30.310
" 26....	77	23	7	14	7	1	30	71	48	59.3	23	65	30.129
" 27....	76	27	5	15	7	4	28	69	48	60.0	21	67	29.862
" 28....	79	29	9	9	10	4	33	62	52	56.0	10	56	29.874
" 29....	84	35	8	13	11	2	34	70	51	61.6	19	73	29.772
" 30....	66	23	9	7	9	..	36	61	45	56.6	16	47	29.811
" 31....	69	22	2	12	8	1	34	49	36	42.3	13	63	29.880
November 1....	68	13	3	18	4	1	25	47	35	41.3	12	55	29.966
" 2....	76	24	6	12	6	..	34	52	36	44.0	16	56	30.179
" 3....	84	27	4	10	16	..	36	55	40	48.0	15	59	30.293
" 4....	84	36	7	16	10	2	34	59	41	49.6	18	67	30.239
" 5....	80	31	7	9	12	3	35	58	40	50.6	18	74	30.101
" 6....	62	24	3	12	9	1	28	66	50	58.3	16	70	30.027
" 7....	81	32	7	14	13	1	39	57	47	53.6	10	45	30.296
" 8....	90	26	5	18	8	3	30	60	46	53.3	14	60	30.214
" 9....	79	25	5	16	13	1	33	56	50	53.0	6	82	29.881
" 10....	78	36	4	14	17	4	33	61	46	55.0	15	77	29.894
" 11....	64	13	..	8	6	1	27	60	40	50.6	20	67	29.777
" 12....	83	27	3	7	13	1	35	41	32	37.0	9	53	30.083
" 13....	94	34	6	12	18	..	34	36	26	32.0	10	70	30.326
" 14....	73	28	5	6	14	1	33	35	24	29.3	11	72	30.561
" 15....	83	25	5	10	10	..	34	41	30	38.0	11	65	30.353
" 16....	74	16	5	10	9	..	35	53	35	47.6	18	61	30.429
" 17....	64	21	1	11	12	2	35	56	43	52.0	13	67	30.276
" 18. ..	79	25	1	8	13	3	43	57	36	47.6	21	68	30.131
" 19....	75	18	2	11	8	2	35	43	32	36.0	11	48	30.159
" 20....	81	25	6	7	13	..	39	44	36	39.3	8	70	29.495
" 21....	92	24	4	16	12	1	32	40	32	35.0	8	56	29.749
" 22....	70	20	..	4	10	2	28	44	31	38.0	13	64	30.051
" 23....	75	27	2	8	14	3	35	60	39	52.0	21	79	29.297
" 24....	69	15	..	12	10	..	28	43	27	35.3	16	67	29.515
" 25....	67	21	5	9	9	2	29	37	25	31.0	12	75	29.807
" 26....	50	16	1	11	8	3	19	43	27	36.0	16	58	30.175
" 27....	82	29	3	14	9	3	32	50	33	42.0	17	59	30.443

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1874, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1874.													
November 28...	73	14	..	15	4	1	23	54	41	48.6	13	81	30.198
" 29...	66	17	..	15	11	3	28	55	32	41.3	23	62	29.706
" 30...	73	22	5	11	7	1	36	32	23	25.6	9	64	30.298
December 1...	88	29	4	16	11	2	40	43	25	36.6	18	64	30.355
" 2...	83	28	5	15	13	2	38	47	33	40.0	14	60	30.134
" 3...	60	14	..	9	5	2	24	51	38	46.6	13	56	29.859
" 4...	68	29	1	7	13	1	29	48	26	34.6	22	61	30.261
" 5...	82	20	..	9	10	1	34	45	24	33.0	21	79	30.293
" 6...	62	15	..	13	4	2	32	46	36	43.0	10	77	29.954
" 7...	66	19	1	14	10	..	25	45	36	39.3	9	89	29.702
" 8...	62	17	1	11	6	3	24	38	23	31.0	15	73	29.918
" 9...	59	17	3	5	5	2	22	40	23	35.0	17	72	29.966
" 10...	85	28	5	15	10	..	40	46	34	43.6	12	60	30.180
" 11...	75	19	1	13	8	2	31	43	29	35.0	14	64	30.046
" 12...	67	17	..	12	11	..	29	36	29	31.6	7	62	30.169
" 13...	81	24	1	20	13	3	22	45	35	39.6	10	76	30.072
" 14...	84	31	..	14	15	4	29	46	16	32.0	30	63	29.844
" 15...	72	21	2	15	11	2	31	20	8	13.3	12	56	30.406
" 16...	68	15	4	15	4	1	26	36	14	27.3	22	63	30.286
" 17...	86	29	2	14	14	1	39	40	33	36.0	7	79	29.773
" 18...	97	33	4	11	14	4	51	38	23	29.0	15	73	29.866
" 19...	83	24	.	11	8	5	38	41	32	37.3	9	72	29.937
" 20...	83	26	1	10	12	4	34	36	30	33.0	6	85	29.751
" 21...	73	20	..	11	9	..	33	30	20	23.6	10	65	30.012
" 22...	88	29	4	10	12	1	43	41	20	31.3	21	89	29.921
" 23...	89	35	1	13	12	4	46	46	33	38.3	13	81	29.953
" 24...	78	27	3	17	14	1	30	39	27	34.3	12	73	29.789
" 25...	91	25	4	10	9	1	47	34	25	30.0	9	84	30.221
" 26...	77	23	..	8	7	1	33	40	20	33.0	20	68	30.101
" 27...	95	31	2	13	13	3	46	47	34	40.3	13	85	30.043
" 28...	88	20	1	21	9	..	36	50	41	46.3	9	81	29.825
" 29...	90	27	2	11	10	3	38	49	25	41.0	24	77	29.871
" 30...	76	24	3	8	10	1	26	27	20	23.0	17	77	30.267
" 31...	80	24	1	14	10	..	28	16	7	11.3	9	76	30.614

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure.

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
January 1....	82	29	..	10	15	3	44	25	17.0	10	15	79	30.531
" 2....	99	24	3	12	11	2	50	38	30.0	24	14	89	29.733
" 3....	69	16	3	10	6	2	24	31	28.6	25	6	76	30.128
" 4....	93	25	2	8	12	2	39	40	34.0	30	10	89	30.022
" 5....	92	26	..	16	13	4	39	34	25.6	22	12	79	30.185
" 6....	70	24	1	6	11	6	32	37	23.3	16	21	68	30.469
" 7....	103	32	4	11	9	6	42	36	33.6	28	8	79	30.002
" 8....	98	19	1	13	6	1	29	39	29.6	27	12	79	30.093
" 9....	87	22	..	13	8	3	34	34	24.6	2	32	96	29.999
" 10....	103	37	4	12	23	1	42	34	5.0	— 3	37	100	30.365
" 11....	98	35	2	11	12	7	43	27	17.3	7	20	74	30.322
" 12....	101	38	..	13	11	1	42	25	20.6	14	11	100	30.403
" 13....	98	31	1	20	16	3	37	33	29.6	21	12	96	29.961
" 14....	99	35	1	14	13	1	37	31	29.0	20	11	89	29.986
" 15....	110	33	..	14	18	2	49	21	16.6	14	7	89	30.276
" 16....	87	27	..	10	9	2	41	26	21.3	17	9	75	30.102
" 17....	73	26	1	10	8	2	20	23	20.3	19	4	84	30.276
" 18....	94	28	3	16	17	1	35	18	11.6	1	17	100	30.147
" 19....	99	22	1	13	3	1	35	21	10.0	— 1	22	89	30.254
" 20....	91	21	1	10	10	2	37	19	13.0	8	11	89	30.380
" 21....	110	20	2	17	5	..	41	27	21.6	12	15	76	30.176
" 22....	83	19	..	16	9	2	27	40	33.3	26	14	69	29.817
" 23....	74	22	1	9	11	2	27	34	26.0	21	13	80	30.320
" 24....	80	26	2	10	12	..	33	37	26.0	18	19	88	29.989
" 25....	77	21	..	10	11	3	31	37	27.6	21	16	71	29.994
" 26....	93	27	1	15	8	..	36	27	21.6	18	9	70	30.209
" 27....	81	22	3	14	6	1	37	29	24.0	17	12	58	30.083
" 28....	98	24	1	16	9	..	41	37	29.3	25	12	72	29.844
" 29....	89	26	5	8	10	4	35	34	29.3	23	11	87	29.610
" 30....	86	18	1	15	4	1	32	38	29.6	22	16	82	29.807
" 31....	84	26	2	14	5	6	29	32	30.3	29	3	90	29.815
February 1....	93	24	5	16	5	4	32	27	23.3	22	5	54	30.040
" 2....	83	22	3	14	10	..	30	40	30.0	21	19	73	30.277

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
February 3....	82	25	1	11	13	1	36	52	44.0	26	26	86	29.640
" 4....	69	21	..	11	8	1	32	44	21.0	13	31	69	29.876
" 5....	100	32	..	11	9	5	44	21	15.6	10	11	64	30.333
" 6....	67	23	4	11	5	3	26	30	21.0	9	21	55	30.239
" 7....	99	22	2	15	13	..	39	10	8.6	7	3	93	30.270
" 8....	71	26	1	7	12	3	32	21	12.6	5	16	65	29.866
" 9....	97	21	1	14	9	..	42	13	1.0	0	13	90	30.131
" 10....	96	16	2	16	4	2	48	25	13.6	1	24	55	30.456
" 11....	86	25	1	23	8	3	29	46	40.0	20	26	74	29.718
" 12....	73	18	1	15	5	4	32	28	18.6	13	15	56	29.986
" 13....	89	26	3	10	10	1	39	29	24.6	18	11	77	29.999
" 14....	78	32	5	13	11	2	33	29	17.3	7	22	63	29.957
" 15....	86	32	3	20	9	6	33	15	10.3	7	8	69	30.065
" 16....	85	25	3	14	8	1	40	21	14.6	8	13	75	30.171
" 17....	106	32	3	19	12	2	48	38	24.6	15	23	66	29.954
" 18....	82	27	3	11	11	3	38	23	16.6	9	14	73	30.172
" 19....	97	20	1	18	11	2	40	29	24.6	17	12	77	29.859
" 20....	88	28	3	8	17	1	36	38	35.0	29	9	85	29.349
" 21....	85	24	2	11	9	3	46	35	32.0	30	5	69	29.895
" 22....	80	25	..	7	10	5	37	43	35.0	25	18	66	30.247
" 23....	81	21	1	12	9	1	32	53	46.3	42	11	70	30.054
" 24....	78	26	..	15	10	2	38	54	48.6	43	11	86	29.794
" 25....	87	27	1	11	11	3	32	48	45.3	41	7	88	29.499
" 26....	92	20	..	13	11	3	40	43	37.0	33	10	64	29.818
" 27....	79	22	..	11	8	1	33	33	27.6	19	14	69	29.672
" 28....	100	32	3	17	14	4	47	19	16.0	12	7	53	30.140
March 1....	85	21	2	16	9	3	36	30	19.6	12	18	72	30.039
" 2....	111	30	2	11	12	1	49	43	34.3	26	17	65	29.807
" 3....	93	28	2	11	10	2	49	30	25.3	22	8	81	29.973
" 4....	83	25	6	12	8	1	34	33	27.6	24	9	85	30.096
" 5....	93	24	1	17	14	..	44	30	27.6	22	8	74	30.237
" 6....	88	19	1	17	9	3	30	43	36.3	30	13	82	29.903
" 7....	109	26	..	15	10	2	44	37	33.6	32	5	92	29.730

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
March 8......	81	23	2	15	7	..	33	38	34.6	32	6	88	29.800
" 9......	91	28	1	14	14	1	37	40	35.0	27	13	81	30.029
" 10......	86	25	1	15	14	1	31	44	37.6	32	12	79	29.787
" 11......	82	25	..	16	9	3	34	47	39.0	33	14	74	29.963
" 12......	91	24	2	11	9	1	40	55	47.3	39	16	66	29.886
" 13......	56	12	2	8	6	..	22	39	33.6	33	6	86	29.931
" 14......	86	23	1	15	12	4	37	42	35.3	30	12	86	30.043
" 15......	77	17	1	10	5	3	40	41	38.6	36	5	92	29.621
" 16......	93	18	2	21	10	..	30	49	41.6	37	12	88	29.513
" 17......	74	11	..	13	5	1	26	46	32.6	22	24	69	29.636
" 18......	80	18	2	10	6	..	29	31	23.6	17	14	63	30.077
" 19......	77	20	2	13	12	2	36	35	28.3	22	13	71	30.167
" 20......	77	15	2	14	2	2	32	31	24.6	22	9	92	29.708
" 21......	85	21	3	16	8	..	36	29	23.6	19	10	72	29.888
" 22......	76	20	1	13	6	1	39	29	21.0	14	15	72	30.072
" 23......	80	22	4	11	5	6	46	32	24.0	13	19	70	30.289
" 24......	103	23	4	21	8	..	43	40	36.3	31	9	79	29.983
" 25......	89	21	2	20	11	2	30	37	32.3	31	6	73	30.042
" 26......	89	24	1	15	9	2	33	46	38.6	28	18	72	30.010
" 27......	85	21	1	15	9	1	36	54	46.0	41	13	68	29.891
" 28......	89	27	2	11	12	3	44	46	40.3	37	9	62	30.235
" 29......	65	17	3	9	7	..	26	52	43.3	37	15	67	30.312
" 30.....	78	17	2	13	6	2	31	60	50.3	38	22	70	30.262
" 31......	80	22	3	10	5	2	29	51	45.3	39	12	77	30.331
April 1......	83	24	5	19	9	3	33	61	52.0	39	22	81	30.175
" 2......	70	15	3	10	6	3	31	65	55.3	48	17	88	29.926
" 3......	80	16	1	9	10	..	41	55	44.0	41	14	85	29.896
" 4.....	68	17	1	14	5	3	27	46	41.6	37	9	83	29.899
" 5......	89	20	..	14	8	1	38	58	48.0	37	21	65	30.004
" 6......	73	17	2	14	6	3	23	54	45.0	38	16	66	30.182
" 7......	105	27	4	21	7	1	43	36	35.3	31	5	75	30.266
" 8......	90	27	1	12	8	2	43	51	41.6	33	18	74	30.112
" 9......	77	23	3	12	7	1	33	47	41.6	37	10	71	30.019

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
April 10........	91	27	2	11	7	3	36	61	52.0	39	22	58	29.876
“ 11........	71	18	..	14	10	1	41	66	56.0	47	19	52	29.804
“ 12........	77	21	2	18	7	..	30	48	38.6	35	13	70	29.935
“ 13........	74	25	2	11	10	5	39	35	32.0	30	5	83	29.601
“ 14........	85	25	..	15	14	2	39	52	41.3	30	22	62	29.746
“ 15........	85	19	3	16	5	2	29	57	47.6	41	16	64	29.782
“ 16........	75	19	1	14	7	..	34	48	42.6	33	15	73	29.554
“ 17........	74	20	2	12	4	3	31	33	31.0	27	6	55	29.712
“ 18........	92	23	..	21	9	1	38	32	28.6	25	7	53	29.713
“ 19........	82	26	2	12	13	3	32	40	32.6	22	18	54	29.706
“ 20........	101	25	1	13	14	4	38	41	33.6	29	12	55	29.692
“ 21........	86	16	1	14	8	..	36	43	32.6	26	17	49	29.804
“ 22........	85	19	..	22	11	1	26	51	39.3	28	23	58	29 847
“ 23........	89	23	3	14	8	5	39	60	45.6	35	25	60	29.705
“ 24........	82	24	2	14	7	1	27	59	44.0	35	24	60	29.514
“ 25.	91	24	1	13	10	3	34	51	43.6	34	17	60	29.835
“ 26........	67	19	..	14	12	1	34	60	50.3	41	19	51	30.008
“ 27........	75	21	..	13	8	..	35	58	52.0	45	13	53	29.958
“ 28........	67	13	2	11	3	1	40	46	44.0	42	4	68	29.707
“ 29........	73	23	1	17	11	2	27	54	48.0	40	14	50	29.823
“ 30........	84	17	..	15	6	..	27	67	52.6	44	23	54	29.710
May 1........	70	20	5	7	6	2	31	52	46.3	42	10	58	29.778
“ 2........	92	27	2	18	9	3	36	56	50.6	42	14	58	29.576
“ 3........	80	20	1	13	5	2	29	59	49.6	40	19	59	29.784
“ 4........	81	21	3	16	4	3	32	51	45.0	39	12	64	29.680
“ 5........	93	27	3	9	11	..	47	63	52.6	41	22	52	29.873
“ 6........	78	21	2	12	8	..	27	55	50.3	50	5	66	29.720
“ 7........	72	24	1	7	8	5	37	58	51.3	43	15	54	29.909
“ 8........	82	20	4	14	4	..	32	53	50.6	47	6	60	29.972
“ 9........	79	26	4	13	4	2	26	73	58.0	48	25	68	29.743
“ 10........	84	27	2	11	7	4	38	78	61.0	51	27	63	29.640
“ 11........	73	16	..	13	4	4	26	73	62.3	54	19	56	29.936
“ 12........	74	15	1	9	5	..	33	71	62.3	55	16	56	29.776

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
May 13........	67	18	2	5	8	1	26	65	57.3	48	17	62	30.065
" 14........	77	20	..	11	5	2	33	62	54.3	46	16	63	30.130
" 15........	90	23	3	12	4	5	45	72	57.0	48	24	66	29.939
" 16........	70	26	5	5	10	3	25	59	51.3	44	15	65	30.038
" 17........	92	34	6	11	8	1	39	64	54.0	43	21	59	30.131
" 18........	76	30	5	9	8	4	39	63	53.6	44	19	60	30.066
" 19........	76	26	1	15	6	..	29	61	53.0	46	15	65	29.973
" 20........	68	27	4	7	9	2	33	80	70.0	54	26	45	29.822
" 21........	85	29	1	12	12	4	35	86	76.3	64	22	55	29.829
" 22........	93	33	5	12	6	3	47	82	74.3	69	13	68	29.814
" 23........	70	24	7	8	6	..	29	85	77.6	67	18	59	29.849
" 24........	93	28	6	16	8	1	41	77	68.3	56	21	74	29.869
" 25........	62	18	3	8	7	1	24	67	63.6	61	6	88	29.722
" 26........	72	26	4	10	9	2	34	82	72.6	63	19	59	29.799
" 27........	64	15	2	7	7	1	34	74	68.3	60	14	61	30,122
" 28........	62	13	2	10	4	..	21	82	72.0	58	24	52	30.014
" 29........	74	21	2	10	8	1	40	74	66.0	57	17	74	29.820
" 30........	66	21	3	8	8	3	38	75	67.3	57	18	52	29.879
" 31........	71	24	..	15	8	1	28	76	66.6	56	20	52	29.984
June 1........	68	24	1	10	7	1	25	70	63.0	58	12	67	30.088
" 2........	65	23	..	9	9	1	25	67	60.0	52	15	73	30.099
" 3........	67	25	4	11	8	1	38	64	60.6	52	12	63	30.075
" 4........	93	32	2	13	11	1	42	79	69.3	58	21	62	30.056
" 5........	84	28	5	15	8	..	29	80	71.0	59	21	68	30.026
" 6........	54	23	2	4	7	1	26	78	71.0	66	12	77	29 839
" 7........	65	27	3	5	13	1	35	79	63.0	59	20	88	29.716
" 8........	54	20	3	7	7	..	21	73	64.0	55	18	70	30.013
" 9........	53	19	1	7	10	1	26	62	58.3	57	5	87	30.051
" 10........	77	22	3	9	3	2	31	77	67.0	58	19	74	29.942
" 11........	67	21	1	11	5	5	30	82	72.6	61	21	70	30.027
" 12........	66	26	4	9	10	1	35	73	67.0	63	10	78	29.849
" 13........	65	26	1	9	8	3	26	64	57.0	53	11	59	29 879
" 14........	67	24	4	8	9	..	29	70	61.0	49	21	55	29.916

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure —(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
June 15........	80	31	4	8	15	2	35	76	66.6	57	19	58	29.846
" 16........	75	25	5	10	5	1	38	79	71.3	59	20	57	29.775
" 17........	77	24	3	13	10	2	31	76	68.6	60	16	62	29.879
" 18........	69	28	6	7	7	4	28	70	64.6	59	11	71	29,669
" 19........	77	26	5	10	10	..	32	74	66.0	57	17	54	29.789
" 20........	59	17	3	13	5	..	29	76	67.3	59	17	64	30.036
" 21........	72	27	8	9	3	..	38	82	73.3	62	20	58	30.004
" 22........	71	20	6	8	4	..	31	80	72.6	65	15	70	29.936
" 23........	79	28	7	8	8	2	37	79	72.0	67	12	82	29.864
" 24........	79	37	9	3	10	2	44	91	81.3	67	24	73	29.849
" 25........	110	36	9	10	5	1	54	93	84.0	76	17	67	29.827
" 26........	101	40	9	11	14	4	55	80	72.6	67	13	73	29.875
" 27........	83	28	9	14	4	4	39	92	82.0	67	25	68	29.786
" 28........	108	45	13	7	11	3	58	91	83.0	75	16	63	29.789
" 29........	73	33	15	4	11	2	41	75	69.3	65	10	84	30.023
" 30........	80	26	12	11	6	1	48	84	76.3	65	19	73	29.913
July 1........	73	33	9	8	10	1	37	80	73.0	65	15	61	29.953
" 2........	76	32	17	7	5	..	44	80	69.3	61	19	65	30.005
" 3........	75	28	13	10	5	1	41	79	71.0	64	15	66	29.999
" 4........	95	36	18	9	6	1	60	78	74.0	63	15	73	29.979
" 5........	102	55	29	10	7	1	62	86	79.3	72	14	76	29.976
" 6........	133	58	32	12	6	1	74	89	80.3	74	15	78	29.933
" 7........	106	53	30	13	9	2	60	85	78.0	70	15	77	29.976
" 8........	119	56	37	7	6	..	74	82	75.6	68	14	75	30.099
" 9........	121	61	40	17	6	1	74	80	74.3	68	12	77	30.036
" 10........	98	55	31	12	9	2	62	77	73.3	68	9	87	29.766
" 11........	130	64	36	10	11	2	76	84	77.0	73	11	61	29.699
" 12........	121	64	41	13	7	1	86	75	70.3	63	12	65	29.809
" 13........	150	81	62	11	8	..	104	84	75.6	65	19	69	29.679
" 14........	132	79	61	10	5	1	92	85	74.0	68	17	71	29.680
" 15........	136	85	68	11	6	1	98	84	76.0	66	18	76	29.713
" 16........	144	87	70	9	4	1	101	76	71.0	68	8	85	29.599
" 17........	121	72	57	10	5	2	91	86	77.6	68	18	65	29.668

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
July 18......	141	90	70	10	4	1	101	82	72.0	64	18	74	29.665
" 19......	125	76	57	11	7	2	89	76	67.3	59	17	59	29.986
" 20......	116	67	46	9	9	2	78	74	67.6	63	11	65	29.909
" 21......	126	72	45	8	6	1	89	84	74.0	63	21	72	29.756
" 22......	154	86	64	12	7	2	98	82	76.0	68	14	67	29.819
" 23......	155	90	66	19	6	2	105	83	78.0	74	9	80	29,713
" 24......	122	67	54	16	4	..	77	81	73.6	68	13	66	29.873
" 25......	116	67	50	6	2	..	76	83	74.0	72	11	65	29.997
" 26......	122	68	51	9	7	2	85	84	76.0	72	12	83	29.944
" 27......	127	79	57	5	10	1	83	84	78.6	72	12	72	29.876
" 28......	106	57	38	12	6	1	60	79	73.0	64	15	70	29.839
" 29......	106	63	44	12	6	1	69	74	67.6	64	10	87	29.809
" 30......	108	64	46	7	7	..	78	85	75.3	64	21	75	29.846
" 31......	101	59	41	9	5	1	72	77	72.6	69	8	66	29.943
August 1......	88	61	43	3	4	2	63	71	67.6	64	7	67	30.043
" 2......	106	52	38	13	4	1	59	67	59.0	57	10	94	30.069
" 3......	120	58	44	12	3	1	65	72	66.3	60	12	92	29.991
" 4......	111	57	40	8	9	..	69	82	75.3	68	14	84	29.966
" 5.....	96	47	33	8	2	..	55	82	74.6	69	13	82	29.852
" 6......	109	59	39	14	8	1	58	82	76.3	67	15	81	29.825
" 7......	88	46	34	10	6	..	49	82	74.3	70	12	84	29.793
" 8......	94	38	21	10	7	..	41	81	75.0	71	10	84	29.856
" 9......	103	47	31	12	8	..	63	83	75.0	68	15	68	29.859
" 10......	86	47	31	6	5	..	55	85	76.6	68	17	67	29.863
" 11......	107	57	35	14	5	1	68	77	75.3	71	6	86	29.866
" 12......	92	48	35	10	5	1	52	82	76.0	74	8	89	29.902
" 13......	94	48	32	6	7	1	59	84	76.6	73	11	89	29.866
" 14......	98	51	36	8	2	..	61	82	77.6	72	10	79	29.852
" 15......	102	46	35	11	5	..	69	84	78.0	72	12	83	29.843
" 16......	103	49	37	12	4	..	64	82	77.6	73	9	86	29.772
" 17......	103	53	37	9	6	..	64	83	75.3	72	11	90	29.786
" 18......	86	36	20	11	9	..	47	81	74.6	72	9	94	29.679
" 19......	104	58	43	13	5	..	62	83	77.6	70	13	84	29.709

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
August 20....	91	46	34	11	6	..	58	84	77.3	71	13	76	29.843
" 21....	96	50	35	7	4	1	62	81	74.6	69	12	69	29.999
" 22....	91	41	31	6	5	..	55	80	73.0	69	11	86	30.044
" 23....	85	46	26	9	7	1	53	70	64.0	62	8	87	30.139
" 24....	79	36	22	7	4	..	46	69	65.6	61	8	75	30.176
" 25....	66	31	19	11	5	1	39	71	66.0	61	10	75	30.156
" 26....	94	37	29	10	2	..	50	73	66.6	60	13	73	30.096
" 27....	68	30	23	12	2	..	40	73	67.6	60	13	72	30.099
" 28....	89	42	30	8	5	1	61	76	70.0	61	15	67	30.062
" 29....	108	49	33	17	9	..	70	84	74.3	64	20	73	29.919
" 30....	114	61	32	16	12	1	63	83	77.0	70	13	73	29.821
" 31....	90	51	34	5	8	1	64	83	76.3	69	14	79	29.897
September 1....	97	49	32	9	6	1	56	80	74.0	68	12	71	30.020
" 2....	97	48	33	9	4	1	53	80	73.6	66	14	78	29.902
" 3....	94	45	32	9	7	..	60	89	80.0	71	18	74	29.775
" 4....	97	49	34	5	7	1	61	88	80.6	73	15	70	29.628
" 5...	94	44	24	13	9	1	54	81	72.6	65	16	68	29.796
" 6....	98	39	25	14	4	2	59	82	74.0	69	13	66	29.762
" 7....	82	39	24	7	4	1	51	76	68.6	63	13	73	29.904
" 8....	79	40	27	9	8	..	55	81	70.6	60	21	68	29.998
" 9....	92	41	22	10	8	1	57	84	74.6	67	17	71	30.026
" 10....	89	44	24	10	8	..	53	80	64.0	54	26	90	29.828
" 11....	78	37	21	6	3	1	42	64	55.6	49	15	74	30.198
" 12....	82	37	23	6	5	..	46	65	60.3	51	14	83	30.228
" 13....	100	45	23	8	8	..	60	72	67.3	61	11	89	30.157
" 14....	94	52	25	9	13	..	55	72	67.6	63	9	84	30.196
" 15....	106	45	24	17	12	1	50	73	69.0	64	9	85	29.975
" 16....	73	27	17	6	6	..	39	69	65.6	62	7	92	29.704
" 17....	84	35	18	10	8	..	46	67	60.0	51	16	75	29.633
" 18....	71	31	17	14	7	..	34	60	53.3	46	14	75	29.868
" 19....	81	32	16	9	5	1	45	51	48.0	45	6	95	29.638
" 20....	82	31	16	10	13	..	48	65	56.3	48	17	73	29.756
" 21....	83	36	18	11	9	..	42	58	51.3	46	12	73	29.963

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
September 22...	89	28	11	12	5	..	46	55	49.6	43	12	73	30.119
" 23...	86	34	13	11	4	1	40	61	52.6	43	18	71	30.230
" 24...	86	27	11	12	6	1	44	64	56.6	45	19	68	30.209
" 25...	92	32	20	11	7	1	48	69	60.0	50	19	70	29.964
" 26...	100	32	15	12	10	..	45	61	57.6	51	10	66	29.698
" 27...	69	20	6	11	6	..	37	71	60.3	49	22	59	29.829
" 28...	77	29	10	17	9	1	34	71	63.0	55	16	68	29.945
" 29...	96	33	10	17	13	..	44	71	64.3	59	12	78	29.908
" 30...	91	39	17	13	6	..	43	75	67.6	60	15	72	29.624
October 1...	77	28	14	13	7	1	36	67	57.3	45	22	74	29.553
" 2...	73	32	19	11	9	..	39	60	51.3	42	18	65	30.086
" 3...	76	27	7	14	8	1	35	65	57.6	46	19	65	30.312
" 4...	88	38	10	15	16	..	39	70	63.6	55	15	70	30.014
" 5...	83	28	10	15	9	1	39	74	64.6	61	13	80	29.939
" 6...	79	31	8	13	12	..	37	61	56.6	54	7	87	30.040
" 7...	45	15	3	8	7	..	21	64	58.6	45	19	76	29.823
" 8...	66	21	6	9	6	..	25	63	53.3	43	20	69	29.919
" 9...	68	24	9	11	10	1	34	55	49.3	43	12	72	30.042
" 10...	66	22	6	12	14	1	30	59	53.0	43	16	77	29.791
" 11...	68	26	6	7	9	..	33	54	46.0	44	10	79	29.854
" 12...	77	31	7	14	11	1	31	49	43.3	38	11	68	30.128
" 13...	73	26	7	7	8	..	30	51	42.6	34	17	69	30.315
" 14...	65	21	6	7	11	1	32	52	47.3	38	14	76	30.120
" 15...	76	20	5	12	9	..	32	54	52.3	50	4	86	29.629
" 16...	61	20	3	12	12	1	19	62	55.6	43	19	75	29.400
" 17...	69	21	2	6	6	3	35	53	46.6	40	13	58	29.822
" 18...	54	12	2	8	5	..	17	61	55.0	49	12	65	29.853
" 19...	60	15	3	9	8	..	25	52	48.0	43	9	69	30.021
" 20...	76	23	3	10	12	2	31	61	49.6	38	23	63	29.963
" 21...	71	22	6	12	10	1	36	69	58.6	50	19	57	29.810
" 22...	75	23	3	13	6	1	35	71	60.0	51	20	64	29.904
" 23...	78	30	11	10	12	..	38	71	64.0	55	16	62	29.831
" 24...	80	24	5	11	11	2	37	71	63.0	57	14	68	29.665

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
October 25....	66	19	5	14	7	1	21	74	62.0	52	22	61	29.753
“ 26....	50	17	5	9	5	..	19	62	56.3	49	13	72	29.787
“ 27....	62	22	4	9	9	..	30	55	49.0	43	12	64	29.691
“ 28....	67	25	3	8	13	1	29	54	48.0	41	13	65	29 994
“ 29....	69	13	2	11	7	..	26	59	53.3	48	11	77	29.872
“ 30....	57	14	5	13	6	..	20	61	54.0	42	19	81	29.594
“ 31....	65	15	..	12	8	1	29	45	40.3	36	9	67	29.539
November 1....	66	21	3	13	11	1	22	41	39.0	36	5	63	29.748
“ 2....	70	20	5	11	10	1	30	41	35.3	31	10	65	29.828
“ 3....	67	21	3	11	9	1	29	44	37.3	28	16	73	29.856
“ 4....	65	22	1	11	13	..	27	39	35.7	33	6	76	29.670
“ 5....	52	18	2	10	7	..	19	40	35.3	32	8	72	29.872
“ 6....	78	24	2	11	11	1	34	50	41.7	34	16	66	30.032
“ 7....	67	24	3	11	12	2	24	51	43.7	35	16	69	30.025
“ 8....	68	12	..	11	6	..	25	46	41.0	37	9	67	30.044
“ 9....	74	25	4	10	15	..	38	44	38.3	32	12	68	30.189
“ 10...	85	23	2	16	9	2	35	46	41.3	39	7	85	29.657
“ 11....	65	15	3	10	7	..	24	47	44.0	41	6	61	29.749
“ 12....	58	12	3	6	6	..	25	59	50.0	40	19	58	29.912
“ 13....	50	13	2	10	6	..	27	63	53.7	45	18	61	29.808
“ 14....	74	22	..	12	11	3	32	55	49.0	41	14	78	29.568
“ 15....	67	17	2	6	8	..	37	42	38.7	36	6	84	29.632
“ 16....	71	21	1	12	14	..	28	52	45.6	38	14	81	29.527
“ 17....	59	15	1	5	8	..	27	38	32.0	29	9	72	29.892
“ 18....	77	23	1	11	12	5	35	41	35.0	27	14	66	30.082
“ 19....	70	27	2	10	12	2	37	51	46.0	40	11	66	29.698
“ 20....	57	14	1	10	6	1	27	47	42.3	37	10	66	29.926
“ 21....	66	22	4	11	8	..	29	40	38.3	33	7	76	30.044
“ 22....	77	13	..	12	7	2	24	34	30.0	26	8	66	30.537
“ 23....	80	22	..	15	13	1	34	52	41.7	29	23	79	30.136
“ 24....	62	14	2	8	8	..	24	47	42.0	34	13	65	30.117
“ 25....	61	21	3	10	8	1	25	39	34.3	30	9	70	30.494
“ 26....	79	26	1	11	7	4	40	54	46.0	32	22	78	30.038
“ 27....	73	28	1	5	18	..	32	48	43.3	35	13	66	30.133

COURSE OF MORTALITY FROM PREDOMINANT CAUSES OF DEATH,

Day by Day, in the Year 1875, with the Daily Record of Mean Temperature and Mean Barometric Pressure—(*Continued*).

Date.	Total Mortality.	Zymotic Diseases.	Diarrhœal Diseases.	Phthisis Pulmonalis.	Diphtheria and Croup.	Scarlatina.	Children under 5 Years of Age.	Maximum Temperature.	Mean Temperature.	Minimum Temperature.	Range of Temperature.	Mean Humidity (Saturation being 100).	Mean Barometer.
1875.													
November 28...	64	19	1	9	8	3	28	46	38.3	28	18	66	30.185
" 29...	70	29	2	7	21	1	36	46	31.0	14	32	66	29.958
" 30...	68	22	2	9	8	2	31	14	8.3	5	9	82	30.243
December 1...	76	22	5	10	10	1	32	18	13.3	8	10	61	30.158
" 2..	65	22	1	7	15	1	35	27	19.0	11	16	55	30.363
" 3...	71	21	3	12	12	3	36	33	25.6	14	19	71	30.341
" 4...	91	26	4	16	11	2	43	41	36.6	32	9	68	30.054
" 5...	97	23	1	16	9	3	35	37	34.3	29	8	68	29.844
" 6...	57	17	2	7	5	1	32	37	35.3	34	3	73	29.642
" 7...	58	15	1	9	6	2	24	38	37.3	35	3	77	29.541
" 8...	81	21	3	11	11	..	32	38	35.6	34	4	82	29.422
" 9...	69	22	..	12	11	1	28	42	38.6	35	7	74	29.581
" 10...	80	23	..	14	12	3	34	37	34.3	31	6	68	29.845
" 11...	69	18	..	5	12	1	32	42	37.0	30	12	67	29.818
" 12...	76	25	..	14	11	2	29	44	39.0	35	9	67	29.551
" 13...	67	16	3	13	10	2	28	43	37.6	30	13	59	29.287
" 14...	65	16	..	11	11	1	25	31	26.6	23	8	57	29.543
" 15...	90	27	1	15	12	4	37	34	28.0	20	14	67	29.733
" 16...	66	19	1	6	13	..	32	45	40.7	33	12	65	29.693
" 17...	68	18	2	8	15	..	37	39	30.0	18	21	68	29.636
" 18...	79	22	..	10	13	..	33	20	17.0	15	5	72	29.837
" 19...	78	20	4	17	9	3	31	19	12.0	2	17	78	30,236
" 20...	72	17	..	14	12	1	32	29	16.3	1	28	62	30.531
" 21...	84	21	1	16	10	2	39	49	40.7	28	21	62	30.145
" 22...	77	30	4	13	9	3	32	59	52.7	45	14	58	29.859
" 23...	84	21	2	11	11	..	38	64	56.0	47	17	60	29.722
" 24...	61	19	1	14	11	1	26	51	38.0	35	16	74	30.091
" 25...	69	17	1	8	10	..	39	41	38.3	36	5	75	29.794
" 26...	86	20	..	12	10	2	34	40	38.7	38	2	73	29.965
" 27...	87	31	1	12	15	3	43	51	41.0	30	21	70	30.119
" 28...	84	16	1	18	5	4	29	34	32.7	28	6	76	30.252
" 29...	79	32	4	6	14	..	39	37	35.0	33	4	78	30.222
" 30...	72	23	1	10	12	3	23	44	40.3	37	7	89	30.171
" 31...	109	34	3	15	13	2	46	45	42.0	39	6	84	30.164

METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory.

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
January 3 (three days ending)	39.9	11	74	.35	30.214	S.W., N.E.	Rain on two days, and fog on third.
" 10	44.2	27	73	3.92	29.879	N.E., S.E.	Rain on four days. Wind over 200 miles a day.
" 17	25.0	38	69	.55	30.024	W., N.W.	Snow on one day. A clear, cold week.
" 24	37.6	43	69	.38	30.125	W., S.W.	Rain on two days. Snow on one day. Three days of fog.
" 31	27.3	36	71	.13	30.146	N.W., S.W.	Rain on one day. Slight snow on one day. Wind over 250 miles a day.
For the month (31 days)*	34.8	43	71	5.33	30.077	S.W.	
February 7	21.9	31	63	.98	30.191	N.E., N.W.	Snow on three days. Sleet on one day. Wind nearly 250 miles a day. Excessively cold.
" 14	32.0	37	62	.31	29.964	N.W.	Rain on one day.
" 21	36.1	35	71	.13	29.982	N.W.	Rain on two days. Sudden alternations of temperature.
" 28	34.9	50	69	.62	30.099	W., N.W., N.E.	Snow on one day. Wind 200 miles a day.
For the month (28 days)*	31.2	50	66	2.04	30.009	N.W.	

March 7	40.4	37	68	.93	29.951	N.E., S.W.	Rain on two days. Snow on one day. Last part of week variable and damp.
" 14	26.2	24	69	.00	29.596	N.W.	Cloudy and windy week. Wind averaged over 450 miles a day.
" 21	43.5	36	72	.91	30.016	N.E.	Rain on three days. Weather variable and damp.
" 28	37.8	42	60	.25	29.947	N.W., S.W.	Rain on three days, with slight snow on one. Wind over 300 miles a day.
April 4	36.0	33	60	.03	29.947	N.W., N.E.	Slight snow on two days. Cloudy all week. Wind 200 miles a day.
For the month (31 days)*	37.4	42	62	2.12	29.920	N.E., N.W.	
For first quarter (three calendar months)	34.5	50	66	9.49	30.002		
April 11	41.1	37	66	2.87	29.891	N.E.	Seven rainy days, with snow and rain on one day. Wind 200 miles a day.
" 18	42.9	42	63	.52	30.148	N.W., S.W.	Two rainy days. Wind over 230 miles a day.
" 25	44.4	21	69	3.68	29.920	N.E., N.W.	Four rainy days, with thunder and lightning on one, and hail and snow on Saturday.
May 2	41.7	30	62	1.70	29.708	W., N.W.	Rain on one day. Snow on one day. Rain and snow on one day. Wind 300 miles a day.
For the month (30 days)*	38.5	42	65	8.77	29.871	N.W.	
May 9	54.7	49	51	.15	29.859	N.W.	Two rainy days. Week ended hazy and hot.
" 16	61.5	50	60	1.17	30.009	S.W., N.E.	Two rainy days. Two sultry days.
" 23	57.4	28	59	.31	29.815	W., S.W., N.W.	Showers on three days, with thunder and lightning on one.
" 30	63.1	27	66	.51	29.879	S.E.	Rain, with thunder and lightning on one day. Last four days of week clear, calm, and hot.
June 6	64.9	31	68	1.22	29.872	S.E.	Four rainy days. Weather calm and damp.
For the month (31 days)*	57.5	50	58	3.36	29.770	S.E., S.W., N.W.	

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METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory—(*Continued*).

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
June 13	70.6	33	65	.82	29.812	N.E., S.E., W.	Three rainy days, with thunder and lightning on one.
" 20	67.1	27	59	.32	29.983	N.W.	Three rainy days.
" 27	73.8	31	54	.50	29.837	N.W., W.	Rain, with thunder and lightning on two days. Weather mostly clear and hot.
July 4	74.3	40	65	.47	29.813	W., S.W., N.W., S.E.	Rain on three days, with thunder and lightning on two.
For the month (30 days)*	69.4	40	64	2.11	29.848	W., N.W.	
For second quarter (three calendar months)	55.1	50	62	14.24	29.829		
July 11	73.0	31	69	2.90	29.864	N.E., S.W.	Thunder storm on one day. Rain on three days, with lightning and thunder on one.
" 18	75.9	31	59	.85	29.977	S.E., S.W., N.W.	Rain on one day. Weather sultry. Warmest week of summer.
" 25	74.8	25	56	.39	30.019	S.W., S.E.	Rain on one day.
August 1	73.7	25	64	1.14	29.834	S.E.	Rain on one day. Thunder storm on one day.
For the month (31 days)*	73.2	31	65	5.28	29.899	S.E., S.W.	
August 8	68.2	26	61	1.35	29.893	N.W.	Rain on one day. Weather mostly clear and pleasant.
" 15	65.4	15	62	.17	29.851	N.E., N.W.	Rain on one day. Lightning and thunder on one day.

" 22	73.9	31	57	.24	29.968	N.W., S.W., E., N.E.	Rain on one day.
" 29	64.8	22	55	.00	30.022	N.E., S.E.	Partly cloudy, partly clear weather. Dry and calm.
September 5	70.1	32	54	.02	30.004	N.W., S.W.	Rain on one day.
For the month (31 days)*	69.5	32	59	1.78	29.867	N.W.	
September 12	72.1	29	54	.00	29.955	N.W., S.W.	Alternately cloudy and clear weather. Warm and calm.
" 19	66.2	13	78	7.18	30.104	S.E.	Four rainy days. Depth of rain-fall seldom equalled.
" 26	64.1	36	66	.40	30.094	N.W., S.W.	Two rainy days. Mostly clear, with high barometer.
October 3	58.9	23	66	.64	29.736	W.	One rainy day.
For the month (30 days)*	66.3	36	53	8.22	29.922	N.W., S.W.	
For third quarter (three calendar months).	69.7	36	59	15.28	29.896		
October 10	58.4	25	64	1.68	29.991	N.E.	Three rainy days.
" 17	51.4	32	56	.00	30.023	N.W., S.W.	Alternately clear and cloudy weather. A dry, cool week.
" 24	53.5	28	63	.01	30.099	N.W.	Slight shower on one day. Hazy atmosphere on four days.
" 31	56.2	35	63	.01	29.948	W., S.E.	Rain, with lightning and thunder on one day.
For the month (31 days)*	55.8	35	59	1.70	29.939	N.W.	
November 7	49.3	31	61	.00	30.157	W., S.W.	Partly clear, partly cloudy, and hazy week. Frost Saturday morning.
" 14	44.3	37	69	.05	30.105	N.W., S.W.	Rain on one day. Mercury below freezing point three days in the week.
" 21	42.2	27	62	.44	30.084	W., N.W.	Three rainy days.
" 28	40.4	35	69	1.25	29.926	W., N.W.	Rain on two days, with lightning and thunder on one.
December 5	36.8	32	62	.56	30.129	N.W., S.W.	Rain on one day. Snow on one day. Mercury below freezing point on six days.
For the month (30 days)*	40.5	37	64	2.30	30.046	N.W., S.W.	

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METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory—(*Continued*).

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
December 12	36.9	22	70	.56	29.991	N.W., S.W.	Rain on one day. Snow on one day. Mercury below freezing point on six days.
" 19	30.6	38	68	.13	30.026	N.W., S.W.	Four rainy days.
" 26	31.9	26	77	1.99	29.964	W., N.W.	Two rainy days. Mercury at 8 degs. Fahr. Tuesday morning, and Barometer 30.406.
" 31 (five days ending)	32.4	24	79	.14	30.206	W., N.W., S.W.	Rain on one day. Snow on one day. Rain and snow on one day.
For the month (31 days)*	35.8	38	68	3.38	30.121	N.W., S.W.	Two rainy days. Mercury at 7 degs. Fahr. Thursday morning, and Barometer 30.614.
For fourth quarter (three calendar months)	44.0	38	64	7.38	30.035		
For the year †	**51.36**	**95**	**64**	**45.83**	**29.969**		

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† The statement for the *year* is here given as revised by Director Draper.

METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory.

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
January 2 (two days ending)	23.5	28	84	.35	30.132	S.W.	Rain, snow, and sleet on one day.
" 9	28.5	38	81	.78	30.128	N.W.	Rain and sleet on two days, with slight snow on one.
" 16	19.9	37	89	.24	30.202	N.W.	Hail and rain on two days, with sleet on one. Total travel of wind, 1,357 miles.
" 23	19.4	41	84	.31	30.195	N.W.	Snow on one day. Rain, snow, and sleet on one day.
" 30	26.8	21	75	1.25	29.933	N.W.	Snow on three days. Rain and sleet on one day and sleet on one.
February 6	26.4	42	70	.77	30.031	W.	Snow on one day. Rain on one day. Travel of wind, 1,597 miles.
For the month (31 days)*	23.84	43	82	3.17	30.105	S.W., N.W., W.	
February 13	17.0	46	73	.89	30.061	N.W.	Slight snow on two days. Snow and rain on one day. Travel of wind, 1,666 miles.
" 20	20.4	31	71	.41	29.932	N.W.	Slight snow on one day. Rain and sleet on one day. Travel of wind, 1,421 miles.
" 27	38.8	35	73	.79	29.854	N.W., S.W.	Rain on two days.
March 6	26.7	31	73	1.57	30.028	N.E.	Snow on four days. Travel of wind, 1,763 miles.
For the month (28 days)*	25.17	54	71	2.62	29.981	N.W., S.W., N.E.	

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* In this line is shown the statement given for the calendar month by Director Draper.

METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory—(*Continued*).

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
March 13	37.2	28	80	1.17	29.875	N.E.	Snow on two days. Hail and rain on one day.
" 20	32.1	32	80	.66	29.708	W.	Rain on one day. Hail and snow on one day. Travel of wind, 1,316 miles.
" 27	31.7	41	72	.08	30.025	N.W.	Snow on one day. Hail on one day. Travel of wind, 1,399 miles.
April 3	47.2	28	76	.40	30.162	N.E.	Rain on two days.
For the month (31 days)*	34.10	48	76	3.48	29.976	N.E., W., N.W.	
For first quarter (three calendar months)	27.70	63	76	9.27	30.021		
April 10	43.6	30	70	.39	30.051	N.W.	Rain on two days. Snow on one day.
" 17	41.3	39	70	1.21	29.733	N.W.	Rain on two days. Snow on one day. Travel of wind, 1,374 miles.
" 24	36.6	38	55	.37	29.711	N.W.	Rain on one day. Travel of wind, 1,859 miles.
May 1	48.1	33	56	.77	29.831	N.E., N.W.	Rain on two days. Snow on one day. Travel of wind, 1,328 miles.
For the month (30 days)*	43.08	45	64	3.08	29.850	N.E., N.W.	
May 8	50.0	24	59	.72	29.788	W., S.E.	Rain on three days.
" 15	58.9	32	62	.05	29.889	S.E.	Slight showers on one day. Lightning and thunder on one day. A [warm, pleasant week.

“ 22	61.8	43	59	.08	29.953	N.W., S.W.	Rain on one day.
“ 29	69.8	29	66	.42	29.885	S.E.	Rain on one day.
June 5	65.4	28	62	....	30.029	S.E.	A clear and pleasant week.
For the month (31 days)*	60.11	47	61	1.33	29.879	W., S.E., N.W., S.W.	
June 12	66.1	27	78	.42	29.919	S.E.	Rain on two days, with lightning and thunder on one.
“ 19	65.0	30	59	1.25	29.822	N.W.	Rain on one day. Weather mostly clear and pleasant.
“ 26	74.7	34	69	.72	29.913	S.E.	Rain on one day. Lightning on two days.
July 3	74.8	31	68	.33	29.924	S.W.	Pleasant weather; alternately cloudy and clear.
For the month (30 days)*	69.19	44	69	2.72	29.914	S.E., N.W., S.W.	
For second quarter (three calendar months)	57.46	71	65	7.13	29.881		
July 10	76.4	26	77	.88	29.966	S.E.	Lightning on one day. Partly pleasant, partly sultry and cloudy weather.
“ 17	74.5	23	70	.53	29.692	W.	Rain on two days.
“ 24	72.6	25	69	.59	29.817	N.W., S.W.	Partly cloudy, partly clear weather.
“ 31	73.9	21	74	2.89	29.893	N.W., S.W.	Rain on three days, with lightning and thunder on one.
For the month (31 days)*	74.04	30	72	4.89	29.856	S.E., W., N.W., S.W.	
August 7	70.5	25	83	3.14	29.934	S.E.	Rain on three days.
“ 14	76.0	17	80	3.28	29.866	S.W.	Rain on two days. Heavy fall of rain on the 12th (2.63 inches).
“ 21	76.4	15	83	2.38	29.804	S.E., S.W.	Rain on two days, with lightning and thunder on one.
“ 28	67.5	20	76	.16	30.110	N.E.	Rain on one day.
September 4	76.5	25	74	....	29.852	N.E., S.E.	Mostly clear and pleasant weather.
For the month (31 days)*	72.93	28	80	8.97	29.924	S.E., S.W., N.E.	

* In this line is shown the statement given for the calendar month by Director Draper.

METEOROLOGICAL OBSERVATIONS FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

Condensed from Daily Observations of Director Daniel Draper, Observer of Central Park Observatory—(*Continued*).

Date. Week Ending—	Mean Temperature (Fahrenheit Scale).	Greatest Range of Temperature during Week.	Average Humidity (Saturation being 100).	Total Rain-fall (Inches of Water).	Mean Pressure of the Atmosphere.	Prevalent Winds.	Remarks concerning the General Aspects of the Weather.
September 11	68.5	35	73	.39	29.930	N.W., S.W.	Rain on one day.
" 18	63.3	27	83	.68	29.966	S.E., N.E.	Rain on one day.
" 25	53.5	26	78	.71	29.983	S.W., N.W.	Rain on one day. A cool and pleasant week.
October 2	60.2	33	69	.23	29.806	S.W.	Rain on two days.
For the month (30 days)*	63.95	46	75	1.89	29.916	N.W., S.E., N.E., S.W.	
For third quarter (three calendar months).	70.31	46	76	15.75	29.899		
October 9	57.6	31	74	.76	30.012	S.W.	Rain on two days.
" 16	48.6	28	76	.85	29.891	N.W.	Rain on three days.
" 23	54.5	33	62	....	29.886	N.W., S.W.	Partly clear, partly cloudy, pleasant weather.
" 30	55.1	33	69	1.11	29.765	W., S.W.	Rain on two days.
November 6	37.8	22	69	.11	29.792	N.W., W.	Rain and hail on one day.
For the month (31 days)*	53.55	40	70	2.85	29.873	S.W., N.W., W.	

November 13	39.4	32	67	1.41	29.912	S.W., N.W.	Rain on one day. Rest of week clear and pleasant.
" 20	41.2	28	73	.37	29.760	N.E., S.E.	Slight rain on one day. Snow flurry on one day. Travel of wind, 1,334 miles.
" 27	39.4	28	71	1.90	30.214	N.W.	Rain on one day.
December 4	24.6	41	67	....	30.186	N.W.	Alternately cloudy and clear weather. Travel of wind, 1,372 miles.
For the month (30 days)*	39.27	58	69	3.78	29.963	S.W., N.W., N.E., S.E.	
December 11	36.0	13	73	1.14	29.670	N.E.	Rain on two days. Snow on one day.
" 18	31.2	30	64	.04	29.611	W.	Mostly cloudy weather. Travel of wind, 1,595 miles.
" 25	36.3	63	67	.56	30.054	S.W.	Snow on one day. Weather partly clear, partly cloudy. Travel of wind, 1,430 miles.
" 31 (six days ending)	38.3	23	78	.38	30.149	N.E.	Rain on two days.
For the month (31 days)*	33.86	63	69	2.12	29.915	N.E., W., S.W.	
For fourth quarter (three calendar months)	42.23	54	73	8.75	29.917		
For the year *	**49.45**	**96**	**71**	**40.90**	**29.928**		

* In this line is shown the statement given by Director Draper.

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Spinal-Meningitis, Cholera, Diarrhœal Maladies, and other Zymotic Diseases, registered during the Twelve Months ending December 31, 1874.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	Cholera.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First............	1	1	6	20	5	8	1	2	..	50	1	11	106
Second.........	..	..	4	1	1	..	..	..	..	3	..	1	10
Third...........	..	1	2	..	1	2	..	2	..	4	..	2	14
Fourth..........	..	3	26	35	13	7	1	5	..	67	1	20	178
Fifth	..	4	12	25	8	10	2	4	..	55	2	13	135
Sixth	15	15	12	21	19	4	2	9	..	79	9	34	219
Seventh	1	4	44	91	43	15	1	5	..	116	3	25	348
Eighth..........	3	18	30	44	14	18	..	14	..	128	8	34	311
Ninth	4	12	50	80	13	23	..	17	..	111	3	37	350
Tenth	9	10	42	84	41	21	..	11	..	167	4	29	418
Eleventh........	8	27	57	104	39	30	1	12	..	296	7	38	619
Twelfth.........	16	54	55	62	26	29	1	22	..	331	15	299	910
Thirteenth......	5	11	38	47	26	9	..	3	..	116	4	27	286
Fourteenth......	2	2	16	41	21	7	..	9	..	70	1	21	190
Fifteenth	3	3	18	20	7	4	1	5	..	43	4	14	122
Sixteenth	2	5	40	91	15	20	..	5	..	109	2	48	337
Seventeenth.....	21	14	77	107	66	43	1	18	..	332	9	50	738
Eighteenth......	9	6	45	56	23	22	..	13	..	159	3	23	359
Nineteenth......	343	59	82	246	63	85	2	36	..	513	33	228	1,690
Twentieth	7	14	38	209	51	46	..	20	..	226	9	81	701
Twenty-first	20	18	59	61	20	25	1	18	..	177	17	90	506
Twenty-second..	11	22	73	190	71	49	..	30	..	320	18	74	858
Twenty-third ...	4	9	37	18	5	6	..	14	..	73	4	43	213
Twenty-fourth ..	..	7	16	12	3	6	..	1	2	22	1	27	97
Totals......	484	319	879	1,665	594	489	14	275	2	3,567	158	1,269	9,715

Percentage of Zymotic Deaths on Total Mortality.	Total Deaths from all Causes.	Total Deaths, exclusive of those in Public Institutions.	Total Population (in Wards), Census of 1875.	Death rate per 1,000, in Wards, exclusive of Hospitals and Public Institutions.	Death-rate per 1,000, the Mortality in Hospitals and Institutions being distributed pro rata to the Ward Population.	REMARKS.
27.18	390	354	14,298	24.75	29.30	Castle Garden and Emigrant Depot, 32; First Precinct Station, 2; Twenty-seventh Precinct, 2.
16.95	59	58	1,012	57.31	62.25	Second Precinct Station, 1.
21.87	64	64	2,874	22.26	26.79	
27.38	650	649	20,828	31.15	35.71	Fourth Precinct Station, 1.
31.25	432	422	15,951	26.45	31.03	Fifth Precinct Station, 7; Trinity Infirmary, 3.
29.43	744	617	19,861	31.06	35.64	City Prison, 14; Home of Industry, 8; Centre Street Hospital, 103; Sixth Precinct Station, 2.
30.71	1,133	1,132	45,636	24.80	29.38	Seventh Precinct Station, 1.
31.25	995	989	32,465	30.46	35.02	Eighth Precinct Station, 6.
31.39	1,115	1,005	49,403	20.34	24.91	St. Vincent Hospital, 98; Jefferson Market Prison, 5; Ninth Precinct Station, 1; Twenty-eighth Precinct Station, 4; Home for Old Men, 1; St. Joseph's Home, 1.
37.12	1,126	1,114	41,763	26.67	31.24	Essex Street Prison, 6; Tenth Precinct Station, 6.
32.94	1,879	1,613	63,855	25.26	29.83	St. Francis' Hospital, 265; Eleventh Precinct Station, 1.
43.41	2,096	1,182	60,510	19.53	24.09	Sheltering Arms, 1; New York Juvenile Asylum, 1; Leake and Watts' Asylum, 1; Magdalene Asylum, 3; Shepherd's Fold, 2; St. Luke's Home, 1; Convent of the Sacred Heart, 1; Reception Hospital, Ninety-ninth street, 32; Infants' Hospital, 409; Soldiers' Retreat, 7; New York City Asylum for the Insane, 126; Twenty-third Precinct Station, 2; Colored Orphan Asylum, 12; Ward's Island, 223; Randall's Island, 42; Bloomingdale Lunatic Asylum, 17; Twelfth Precinct Station, 1; St. Joseph's Asylum, 5; House of Mercy, 2; Idiot Asylum, Randall's Island, 8; House of Good Shepherd, 7; Deaf and Dumb Asylum, 11.
33.65	850	849	34,013	24.96	29.51	Thirteenth Precinct Station, 1.
27.18	699	690	26,453	26.08	30.65	Roman Catholic Orphan Asylum, 4; Fourteenth Precinct Station, 5.
25.05	487	475	25,529	18.60	23.18	Fifteenth Precinct Station, 1; New York Infant Asylum, 11.
31.29	1,077	1,041	48,236	21.58	26.14	Samaritan Home for the Aged, 7; Home for Aged Hebrews, 1; Trinity Home, 1; Sixteenth Precinct Station, 2; St. Joseph's Home for the Aged, 25.
33.65	2,193	2,185	101,075	21.61	26.17	Seventeenth Precinct Station, 1; New York C[illegible]ge and Hospital for Women, 2; New York Infirmary, 4; Office of Commissioners of Charities and Correction, 1.
29.64	1,211	1,203	61,183	19.66	24.22	Home for Respectable Aged and Indigent Females, 6; Shelter of the Holy Communion, 1; Eighteenth Precinct Station, 1.
38.68	4,369	2,282	118,728	19.22	23.78	Inebriate Asylum, 1; Presbyterian Home, 32; German Hospital, 63; Mt. Sinai Hospital, 56; Foundling Hospital, 295; Home for Aged Poor, 2; Women's Hospital, 18; City Lunatic Asylum, 103; Almshouse, 96; Penitentiary, 15; Small-pox, 288; St. Joseph's Industrial School, 1; Charity Hospital, 668; Epileptic and Paralytic Hospital, 17; Chapin Home for Aged and Infirm, 1; Colored Home Hospital, 130; Nursery and Child's Hospital, 142; St. Luke's Hospital, 94; Workhouse, 12; Fifty-seventh Street Prison, 1; Fever Hospital, 27; Roman Catholic Orphan Asylum, 12; Hospital for Ruptured and Crippled, 10; Baptist Home for Aged and Infirm, 2; Nineteenth Precinct Station, 1.
34.26	2,046	2,009	79,764	25.18	29.75	St. Elizabeth Hospital, 21; St. Mary's Hospital, 10; Twentieth Precinct, 5; Twenty-ninth Precinct, 1.
23.93	2,114	1,222	58,837	20.76	25.34	Bellevue Hospital, 879; in Ambulances, 9; Morgue, 2; Home of the Friendless, 1; Twenty-first Precinct, 1.
38.40	2,234	2,076	83,417	24.88	29.45	Roosevelt Hospital, 138; New York Infant Asylum, 18; Twenty-second Precinct Station, 2.
40.88	521	499	24,320	20.51	25.08	House of Rest for Consumptives, 12; Home for Incurables, 9; Catholic Protectory, 1.
39.92	243	239	11,874	20.12	24.67	Mt. St. Vincent's Academy, 3; Twenty-fourth Precinct, 1.
33.82	28,727	23,969	1,041,886	23.01	27.57	Total Deaths in Public Institutions............... 4,758

DEATHS FROM ZYMOTIC DISEASES

During the Twelve Months ending December 31, 1875.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	1	10	8	18	3	1	6	2	52	4	11	116
Second	..	..	3	4	1	..	..	..	2	1	1	12
Third	..	..	2	2	2	..	..	1	3	..	4	14
Fourth	6	3	6	30	24	9	..	3	74	1	18	174
Fifth	2	3	3	18	6	7	..	5	55	1	16	116
Sixth	5	1	11	32	27	7	..	9	69	2	17	180
Seventh	8	1	34	85	38	16	..	7	157	5	36	387
Eighth	10	1	15	60	29	24	1	4	120	6	21	291
Ninth	5	8	27	110	25	21	..	15	134	9	33	387
Tenth	29	6	19	97	34	25	2	12	172	5	30	431
Eleventh	96	15	33	110	53	33	2	27	262	10	52	693
Twelfth	25	16	26	139	43	18	..	25	256	8	265	821
Thirteenth	39	10	18	67	33	12	..	5	120	3	22	329
Fourteenth	5	7	16	55	12	7	..	11	90	6	20	229
Fifteenth	9	..	8	40	12	4	1	11	39	2	21	147
Sixteenth	7	2	26	63	24	12	..	11	111	3	33	292
Seventeenth	126	24	31	177	84	27	6	21	368	9	58	931
Eighteenth	19	8	31	119	51	20	..	7	174	9	38	476
Nineteenth	782	19	42	289	88	46	5	82	665	24	192	2,234
Twentieth	27	13	44	247	52	45	1	25	247	14	82	797
Twenty-first	32	7	31	181	30	14	2	22	149	14	73	555
Twenty-second	42	12	53	271	61	39	..	26	295	8	95	902
Twenty-third	4	1	25	72	20	15	1	13	96	2	36	285
Twenty-fourth	1	..	2	43	4	5	..	4	26	..	20	105
Totals	1,280	167	514	2,329	756	407	27	348	3,736	146	1,194	10,904

Percentage of Zymotic Deaths on Total Mortality.	Total Deaths from all Causes.	Total Deaths, exclusive of those in Public Institutions.	Total Population (in Wards), Census of 1875.	Death-rate per 1,000, in Wards, exclusive of Hospitals and Public Institutions.	Death-rate per 1,000, the Mortality in Hospitals and Institutions being distributed pro rata to the Ward Population.	REMARKS.
24.52	473	453	14,298	31.68	36.64	Castle Garden and Emigrant Depot, 20.
26.66	45	45	1,012	44.46	49.40	
18.66	75	61	2,874	21.22	26.06	House of Relief, 14.
27.53	632	629	20,828	30.19	35.19	Fourth Precinct Station, 3.
28.01	414	397	15,951	24.88	29.84	Fifth Precinct Station, 1; Trinity Infirmary, 16.
26.78	672	611	19,861	30.76	35.74	City Prison, 14; House of Industry, 8; Centre Street Hospital, 38; Sixth Precinct Station, 1.
31.79	1,217	1,215	45,636	26.62	31.59	Seventh Precinct Station, 2.
30.63	950	944	32,465	29.07	34.03	Eighth Precinct Station, 6.
31.23	1,239	1,126	49,403	22.79	27.75	St. Vincent's Hospital, 107; Jefferson Market Prison, 1; Twenty-eighth Precinct, 1; Ninth Precinct, 2; Home for Aged, 1; Home for Aged Men and Aged Couples, 1.
36.15	1,192	1,187	41,757	28.42	33.37	Essex Street Prison, 2; Tenth Precinct Station, 2; Ludlow Street Jail, 1.
34.94	1,983	1,703	63,855	26.66	31.63	St. Francis' Hospital, 279; Eleventh Precinct Station, 1.
38.76	2,118	1,239	60,510	20.47	25.45	Reception Hospital, 99th street, 39; Infants' Hospital, 358; Soldiers' Retreat, 6; N. Y. City Asylum for the Insane, 144; Sheltering Arms, 2; Colored Orphan Asylum, 8; Ward's Island, 174; Randall's Island, 60; Bloomingdale Lunatic Asylum, 20; House of Mercy, 1; St. Joseph's Asylum, 7; House of Refuge, 5; House of Mercy, 1; Idiot Asylum, Randall's Island, 7; N. Y. Juvenile Asylum, 2; Union Home and School, 1; House of Good Shepherd, 14; Deaf and Dumb Asylum, 5; Homœopathic Hospital, 20; Twenty-third Precinct, 1; Leake and Watts' Hospital, 1; Twelfth Precinct, 1; St. Luke's Old Ladies' Home, 2.
37.60	875	875	34,013	25.72	30.69	
30.41	753	746	26,453	28.20	33.15	R. C. Orphan Asy., 1; Lying-in Asy., 1; 14th Precinct, 5.
30.88	476	458	25,529	17.94	22.91	Fifteenth Precinct Station, 2; N. Y. Infant Asylum, 15; Protestant Half Orphan Asylum, 1.
29.70	983	962	48,235	19.94	24.89	Samaritan Home for the Aged, 2; Home for the Blind, 1; St Joseph's Home for the Aged, 18.
37.44	2,486	2,482	101,075	24.55	29.52	Seventeenth Precinct Station, 3; Eye Infirmary, 1.
34.41	1,383	1,366	61,195	22.32	27.29	Home for Respectable Aged and Indigent Females, 14; Potter's Home, 1; 18th Precinct, 1; Homœo. Col., 1.
43.76	5,105	2,454	118,727	20.66	25.63	Presbyterian Home, 30; German Hosp., 84; Mt. Sinai Hosp., 70; Foundling Hosp., 318; Baptist Home, 4; Women's Hosp., 15; City Lunatic Asylum, 111; Almshouse, 92; Penitentiary, 25; Small-pox, 739; Home for Aged Females, 1; Charity Hosp., 694; Epileptic and Paralytic Hosp., 10; 19th Precinct, 4; Chapin Home, 6; Colored Home Hosp., 131; Nursery and Child's Hosp., 93; St. Luke's Hosp., 123; Workhouse, 34; Orphan Asylum, 1; Fever Hosp., 33; R. C. Orphan Asylum, 19; Hosp. for Ruptured and Crippled, 10; Blind Asylum, 1; Home for Aged Hebrews, 2; Children's Fold, 1.
36.74	2,169	2,146	79,764	26.90	31.86	Home for Aged Poor, 1; St. Elizabeth's Hospital, 13; St. Vincent de Paul's, 1; 20th Precinct, 3; 29th Precinct, 2; St. Mary's Hospital, 2; Orphan Asylum, 1.
26.41	2,101	1,297	58,831	22.04	27.00	Bellevue Hosp., 788; in Ambulances, 6; Home of the Little Sisters of the Poor, 3; Steamer "Bellevue," 3; Steamer "Minnahannock," 1; N. Y. Medical College and Hosp. for Women, 1; Home of the Friendless, 2.
36.68	2,459	2,261	83,420	27.10	32.06	Roosevelt Hospital, 164; Old Ladies' Home, 2; N. Y. Infant Asylum, 27; N. Y. Orphan Asylum, 1; Twenty-second Precinct, 4.
45.38	628	602	24,320	24.75	29.72	House of Rest for Consumptives, 14; Home for Incurables, 11; Thirty-second Precinct Station, 1.
37.36	281	276	11,874	23.24	28.21	Catholic Protectory, 1; Twenty-third Precinct Station, 1; Twenty-fourth Precinct Station, 1; Mt. St. Vincent's Hospital, 2.
35.51	30,709	25,535	1,041,886	24.50	29.47	Total Deaths in Public Institutions.............. 5,174

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Twelve Weeks and Three Days ending Saturday, March 28, 1874.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	..	4	9	2	6	..	1	1	..	3	26
Second	..	..	1	..	..	..	..	..	..	..	..	1
Third	..	..	..	..	..	..	..	..	..	..	..	..
Fourth	..	1	3	3	4	..	1	3	1	1	6	23
Fifth	..	..	4	5	1	3	1	1	1	1	3	20
Sixth	2	6	2	7	8	1	1	3	4	1	10	45
Seventh	1	..	15	8	13	4	1	1	3	1	6	53
Eighth	..	3	11	9	3	2	..	5	4	2	9	48
Ninth	..	2	26	15	6	7	..	3	1	..	9	69
Tenth	..	1	12	15	10	5	..	3	8	1	7	62
Eleventh	..	7	20	22	10	1	1	5	4	..	8	78
Twelfth	..	24	27	11	11	1	1	4	11	2	64	156
Thirteenth	..	3	20	9	5	..	..	..	2	1	9	49
Fourteenth	1	1	4	8	9	1	..	2	1	..	2	29
Fifteenth	..	2	7	4	3	..	..	2	1	2	3	24
Sixteenth	..	4	11	23	6	8	..	..	3	..	18	73
Seventeenth	..	5	29	20	25	6	..	5	13	5	11	119
Eighteenth	..	2	26	11	6	5	..	2	6	..	3	61
Nineteenth	13	10	33	61	19	22	..	7	24	6	37	232
Twentieth	..	8	16	49	17	14	..	7	10	3	17	141
Twenty-first	1	5	26	9	6	6	..	3	3	6	16	81
Twenty-second	..	10	19	33	20	12	..	4	10	6	22	136
Twenty-third	1	..	4	3	1	..	..	2	1	1	7	20
Twenty-fourth	..	..	2	..	1	..	..	..	1	..	..	4
Totals	19	94	322	334	186	104	6	63	113	39	270	1,550

Total Deaths from all Causes.	Percentage of Zymotic Deaths on Total Mortality.	Total Deaths, Exclusive of those in Public Institutions.	Remarks.
95	27.37	89	Castle Garden and Emigrant Depot, 6.
17	5.88	17	
10	.....	10	
145	15.86	145	
86	23.26	84	Fifth Precinct Station, 2.
191	23.56	162	City Prison, 1; Home of Industry, 2; Centre Street Hospital, 26.
228	23.24	228	
224	21.43	223	Eighth Precinct Station, 1.
250	27.60	227	St. Vincent's Hospital, 21; Jefferson Market Prison, 1; Home for Old Men, 1.
240	25.83	235	Essex Street Prison, 1; Tenth Precinct Station, 4.
387	20.15	326	St. Francis Hospital, 61.
442	35.29	249	Reception Hospital, 99th street, 1; Infants' Hospital, 88; Soldiers' Retreat, 2; N. Y. City Asylum for the Insane, 21; Sheltering Arms, 1; Colored Orphan Asylum, 6; Ward's Island, 46; Randall's Island, 10; Bloomingdale Lunatic Asylum, 5; N. Y. Juvenile Asylum, 1; House of Mercy, 1; Idiot Asylum, Randall's Island, 1; Leake & Watts', 1; Twenty-third Precinct Station, 1; House of Good Shepherd, 2; Deaf and Dumb Asylum, 4; Magdalene Asylum, 1; Twelfth Precinct Station, 1.
197	24.87	197	
167	17.36	166	Fourteenth Precinct Station, 1.
124	19.35	119	N. Y. Infant Asylum, 5.
289	25.26	283	Samaritan Home for the Aged, 1; St. Joseph's Home for the Aged, 5.
474	25.10	474	
287	21.25	286	Home for Respectable Aged and Indigent Females, 1; Shelter of the Holy Communion, 1.
919	25.23	488	Presbyterian Home, 6; German Hospital, 12; Mt. Sinai Hospital, 10; Foundling Hospital, 56; Women's Hospital, 5; City Lunatic Asylum, 21; Almshouse, 22; Penitentiary, 3; Small-pox, 13; Charity Hospital, 184; Epileptic and Paralytic Hospital, 1; Colored Home Hospital, 28; Nursery and Child's Hospital, 33; St. Luke's Hospital, 21; Workhouse, 8; Fever Hospital, 3; R. C. Orphan Asylum, 2; Hospital for Ruptured and Crippled, 3.
479	29.43	470	St. Elizabeth's Hospital, 2; St. Mary's Hospital, 4; Twentieth Precinct Station, 2.
471	17.20	256	Bellevue Hospital, 210; in Ambulances, 2; Morgue, 2; Twenty-first Precinct Station, 1.
474	28.69	437	Roosevelt Hospital, 32; N. Y. Infant Asylum, 3; Twenty-second Precinct Station, 2.
90	22.22	86	House of Rest for Consumptives, 4.
42	9.52	42	
6,328	24.49	5,299	Total Deaths in Public Institutions.................................... 1,029

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-Cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, registered during the Thirteen Weeks ending Saturday, June 27, 1874.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-Cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	..	..	5	..	1	..	..	5	..	2	13
Second	..	..	1	..	..	..	..	..	..	..	..	1
Third	..	1	1	..	1	2	..	1	..	..	2	8
Fourth	..	..	4	8	3	2	..	..	4	..	8	29
Fifth	..	3	5	4	2	2	..	..	1	..	4	21
Sixth	11	5	6	4	1	1	..	1	6	4	10	49
Seventh	..	1	6	9	5	5	..	..	4	2	7	39
Eighth	1	12	8	9	3	3	..	2	8	3	8	57
Ninth	1	7	15	22	1	6	..	3	3	..	13	71
Tenth	3	5	10	22	8	8	..	2	9	1	4	72
Eleventh	1	12	16	20	14	7	..	1	14	4	16	105
Twelfth	1	9	16	11	5	5	..	3	55	1	81	187
Thirteenth	1	4	12	13	6	..	..	..	8	2	5	51
Fourteenth	1	..	4	10	7	1	..	1	3	..	6	33
Fifteenth	..	1	2	8	4	2	..	1	3	1	3	25
Sixteenth	..	1	14	23	4	4	..	3	2	..	13	64
Seventeenth	4	5	25	24	15	11	..	2	16	..	10	112
Eighteenth	..	3	8	10	2	3	..	1	11	2	8	48
Nineteenth	62	18	27	43	13	19	..	7	37	8	65	299
Twentieth	..	2	9	31	9	4	..	2	15	4	19	95
Twenty-first	1	11	17	6	2	4	..	6	4	6	26	83
Twenty-second	3	9	21	25	16	7	..	2	19	6	22	130
Twenty-third	1	7	7	3	..	1	..	4	2	1	6	32
Twenty-fourth	..	6	5	4	1	3	..	..	3	1	5	28
Totals	91	122	239	314	122	101	..	42	232	46	343	1,652

Total Deaths from all Causes.	Percentage of Zymotic Deaths on Total Mortality.	Total Deaths, exclusive of those in Public Institutions.	Remarks.
97	13.40	86	Castle Garden and Emigrant Depot, 11.
14	7.14	14	
23	34.78	23	
140	20.71	140	
106	19.81	104	Fifth Precinct Station, 1; Trinity Infirmary, 1.
172	28.49	139	City Prison, 6; Home of Industry, 3; Centre Street Hospital, 24.
240	16.25	240	
247	23.07	246	Eighth Precinct Station, 1.
264	26.90	242	St. Vincent's Hospital, 17; Jefferson Market Prison, 2; Twenty-eighth Precinct Station, 3.
239	30.12	237	Essex Street Prison, 2.
412	25.48	354	St Francis' Hospital, 58.
478	39.12	232	Reception Hospital, 99th street, 4; Infants' Hospital, 143; Soldiers' Retreat, 2; N. Y. City Asylum for the Insane, 25; Shepherd's Fold, 1; Colored Orphan Asylum, 3; Ward's Island, 46; Randall's Island, 3; Bloomingdale Lunatic Asylum, 6; St. Luke's Home, 1; St. Joseph's Asylum, 1; House of Mercy, 1; Idiot Asylum, Randall's Island, 5; Magdalene Asylum, 2; House of Good Shepherd, 3; Deaf and Dumb Asylum, 2.
211	24.17	210	Thirteenth Precinct Station, 1.
163	20.24	161	R. C. Orphan Asylum, 1; Fourteenth Precinct Station, 1.
113	22.12	112	N. Y. Infant Asylum, 1.
251	25.50	251	
474	23.63	469	N. Y. College and Hospital for Women, 2; N. Y. Infirmary, 2; Office of Commissioners of Charities and Correction, 1.
290	16.55	288	Home for Respectable Aged and Indigent Females, 2.
996	30.02	511	Presbyterian Home, 4; German Hospital, 13; Mount Sinai Hospital, 23; Foundling Hospital, 49; Home for Aged Poor, 2; Women's Hospital, 6; City Lunatic Asylum, 28; Almshouse, 15; Penitentiary, 3; Small-pox Hospital, 56; Charity Hospital, 157; Epileptic and Paralytic Hospital, 5; Colored Home Hospital, 35; Nursery and Child's Hospital, 42; St. Luke's Hospital, 29; Fever Hospital, 7; R. C. Orphan Asylum, 4; Hospital for Ruptured and Crippled, 5.
440	21.60	426	St. Elizabeth's Hospital, 8; St. Mary's Hospital, 4; Twentieth Precinct Station, 2.
498	16.67	282	Bellevue Hospital, 214; in Ambulances, 2.
503	25.84	450	Roosevelt Hospital, 48; N. Y. Infant Asylum, 5.
114	28.07	106	House of Rest for Consumptives, 4; Home for Incurables, 3; Catholic Protectory, 1.
63	44.44	62	Mount St. Vincent's Academy, 1.
6,548	25.23	5,385	Total Deaths in Public Institutions.................... 1,163

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Cholera, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Thirteen Weeks ending Saturday, September 26, 1874.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	Cholera.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	1	2	5	..	1	..	1	..	38	1	2	51
Second	..	..	1	..	..	..	..	..	..	2	..	..	3
Third	..	..	1	..	..	..	..	1	..	4	..	..	6
Fourth	..	1	3	7	1	3	..	1	..	55	..	2	73
Fifth	..	..	1	7	..	3	..	3	..	47	..	2	63
Sixth	2	2	2	5	5	1	..	..	..	61	2	7	87
Seventh	..	2	10	18	8	1	..	3	..	93	..	8	143
Eighth	..	3	8	10	..	10	..	4	..	92	2	7	136
Ninth	..	2	7	18	2	5	..	5	..	93	2	5	139
Tenth	1	3	11	19	4	7	..	1	..	129	2	14	191
Eleventh	4	8	16	25	7	14	..	3	..	245	2	6	330
Twelfth	8	10	5	12	2	15	..	4	..	231	5	96	388
Thirteenth	..	4	4	11	4	5	..	1	..	87	1	7	124
Fourteenth	..	1	3	7	1	4	..	3	..	58	..	7	84
Fifteenth	..	..	4	1	..	2	1	..	..	35	..	3	46
Sixteenth	..	..	6	13	1	4	..	..	..	93	1	8	126
Seventeenth	4	4	12	22	7	15	..	3	..	261	1	12	341
Eighteenth	..	1	7	14	4	6	..	7	..	121	..	5	165
Nineteenth	79	30	13	30	4	20	1	10	..	348	12	75	622
Twentieth	2	3	12	39	7	16	..	3	..	172	1	20	275
Twenty-first	5	1	7	10	2	13	1	4	..	149	3	24	219
Twenty-second	..	2	13	40	15	14	..	9	..	250	2	22	367
Twenty-third	1	2	11	5	..	..	..	1	..	55	1	18	94
Twenty-fourth	..	1	7	2	1	2	..	..	2	16	..	13	44
Totals	106	81	166	320	75	161	3	67	2	2,735	38	363	4,117

Total Deaths from all Causes.	Percentage of Zymotic Deaths on Total Mortality.	Total Deaths, Exclusive of those in Public Institutions.	REMARKS.
126	40.48	112	Castle Garden and Emigrant Depot, 14.
15	20.00	14	Second Precinct Station, 1.
19	31.58	19	
180	40.55	180	
125	50.40	122	Fifth Precinct Station, 1; Trinity Infirmary, 2.
199	43.72	170	City Prison, 4; Home of Industry, 1; Centre Street Hospital, 23; Sixth Precinct Station, 1.
326	43.86	325	Seventh Precinct Station, 1.
288	47.22	288	
319	43.57	286	St. Vincent's Hospital, 32; St. Joseph's Home, 1.
360	53.05	356	Essex Street Prison, 3; Tenth Precinct Station, 1.
649	50.85	586	St. Francis' Hospital, 63.
686	56.56	396	Reception Hospital, 99th street, 16; Infants' Hospital, 140; N. Y. City Asylum for the Insane, 38; Shepherd's Fold, 1; Colored Orphan Asylum, 2; Ward's Island, 77; Randall's Island, 4; Bloomingdale Lunatic Asylum, 4; Twenty-third Precinct Station, 1; St. Joseph's Asylum, 3; Idiot Asylum, Randall's Island, 2; Convent of the Sacred Heart, 1; Deaf and Dumb Asylum, 1.
241	51.45	241	
197	42.64	195	Fourteenth Precinct Station, 2.
130	35.38	129	N. Y. Infant Asylum, 1.
265	47.55	257	Samaritan Home for the Aged, 2; Sixteenth Precinct Station, 1; Trinity Home, 1; St. Joseph's Home for the Aged, 5.
722	47.23	720	Seventeenth Precinct Station, 1; N. Y. Infirmary, 1.
349	47.28	347	Home for Respectable Aged and Indigent Females, 1; Eighteenth Precinct Station, 1.
1,230	50.57	657	Inebriate Asylum, 1; Presbyterian Home, 10; German Hospital, 22; Mt. Sinai Hospital, 14; Foundling Hospital, 119; City Lunatic Asylum, 32: Almshouse, 34; Penitentiary, 6, Small-pox, 68; Charity Hospital, 148; Epileptic and Paralytic Hospital, 9; St. Joseph's Industrial School, 1; Colored Home Hospital, 37; Nursery and Child's Hospital, 39; St. Luke's Hospital, 19; Workhouse, 3; Fever Hospital, 9; R. C. Orphan Asylum, 2; Chapin Home for the Aged and Infirm, 1.
592	46.45	585	St. Elizabeth's Hospital, 4; St. Mary's, 1; Twentieth Precinct Station, 1.
573	38.22	357	Bellevue Hospital, 211; in Ambulances, 4; Home of theFriendless, 1.
684	53.65	644	Roosevelt Hospital, 32; N. Y. Infant Asylum, 7.
160	58.75	156	Home for Incurables, 4.
74	59.46	73	Mt. St. Vincent's Academy, 1.
8,509	48.38	7,215	Total Deaths in Public Institutions.................................... 1,294

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Thirteen Weeks and Five Days ending Saturday, December 31, 1874.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First............	1	..	..	1	3	..	..	1	6	..	4	16
Second	..	..	1	1	1	..	..	..	1	..	1	5
Third...........	..	..	..	..	..	..	..	..	..	..	..	..
Fourth..........	..	1	16	17	5	2	..	1	7	..	4	53
Fifth............	..	1	2	9	5	2	1	..	6	1	4	31
Sixth...........	..	2	2	5	5	1	1	5	8	2	7	38
Seventh.........	..	1	13	56	17	5	..	1	16	..	4	113
Eighth..........	2	..	3	16	8	3	..	3	24	1	10	70
Ninth...........	3	1	2	25	4	5	..	6	14	1	10	71
Tenth	5	1	9	28	19	1	..	5	21	..	4	93
Eleventh........	3	..	5	37	8	8	..	3	33	1	8	106
Twelfth.........	7	11	7	28	8	8	..	11	34	7	58	179
Thirteenth......	4	..	2	14	11	4	..	2	19	..	6	62
Fourteenth......	..	..	5	16	4	1	..	3	8	1	6	44
Fifteenth........	3	..	5	7	..	..	..	2	4	1	5	27
Sixteenth	2	..	9	32	4	4	..	2	11	1	9	74
Seventeenth.....	13	..	11	41	19	11	1	8	42	3	17	166
Eighteenth......	9	..	4	21	11	8	..	3	21	1	7	85
Nineteenth......	189	1	9	112	27	24	2	11	104	7	51	537
Twentieth	5	1	1	90	18	12	..	8	29	1	25	190
Twenty-first	13	1	9	36	10	2	..	5	21	2	24	123
Twenty-second..	8	1	20	92	20	16	..	15	41	4	8	225
Twenty-third ...	1	..	15	7	4	5	..	7	15	1	12	67
Twenty-fourth ..	..	..	2	6	..	1	..	1	2	..	9	21
Totals......	268	22	152	697	211	123	5	103	487	35	293	2,396

Total Deaths from all Causes.	Percentage of Zymotic Deaths on Total Mortality.	Total Deaths, exclusive of those in Public Institutions.	Remarks.
72	22.22	67	Castle Garden and Emigrant Depot, 1; First Precinct Station, 2; Twenty-seventh Precinct, 2.
13	38.46	13	
12	.....	12	
185	28.65	184	Fourth Precinct Station, 1.
115	26.96	112	Fifth Precinct Station, 3.
182	20.88	146	City Prison, 3; Home of Industry, 2; Centre Street Hospital, 30; Sixth Precinct Station, 1.
339	33.33	339	
236	29.66	232	Eighth Precinct Station, 4.
282	25.17	250	St. Vincent's Hospital, 28; Jefferson Market Prison, 2; Twenty-eighth Precinct Station, 1; Ninth Precinct, 1.
287	32.40	286	Tenth Precinct Station, 1.
431	24.59	347	St. Francis' Hospital, 83; Eleventh Precinct Station, 1.
490	36.53	308	Reception Hospital, Ninety-ninth street, 11; Infants' Hospital, 38; Soldiers' Retreat, 3; N. Y. City Asylum for the Insane, 42; Colored Orphan Asylum, 1; Ward's Island, 54; Randall's Island, 25; Bloomingdale Lunatic Asylum, 2; St. Joseph's Asylum, 1; House of Good Shepherd, 2; Deaf and Dumb Asylum, 4.
201	30.84	201	
172	25.58	168	R. C. Orphan Asylum, 3; Fourteenth Precinct Station, 1.
120	22.50	115	Fifteenth Precinct Station, 1; N. Y. Infant Asylum, 4.
272	27.20	251	Samaritan Home for the Aged, 4; Home for Aged Hebrews, 1; Sixteenth Precinct, 1; St. Joseph's Home for the Aged, 15.
523	31.74	522	Eye Infirmary, 1.
285	29.82	283	Home for Respectable Aged and Indigent Females, 2.
1,224	43.87	625	Presbyterian Home, 12; German Hospital, 16; Mt. Sinai Hospital, 9 Foundling Hospital, 71; Baptist Home, 2; Women's Hospital, 7; City Lunatic Asylum, 22; Almshouse, 25; Penitentiary, 3; Small-pox, 151; Fifty-seventh Street Prison, 1; Charity Hospital, 179; Epileptic and Paralytic Hospital, 2; Nineteenth Precinct, 1; Colored Home Hospital, 30; Nursery and Child's Hospital, 28; St. Luke's Hospital, 25; Workhouse, 1; Fever Hospital, 8; R. C. Orphan Asylum, 4; Hospital for Ruptured and Crippled, 2.
535	35.51	526	St. Elizabeth's Hospital, 7; St. Mary's, 1; Twenty-ninth Precinct, 1.
572	21.50	327	Bellevue Hospital, 244; in Ambulance, 1.
573	39.27	543	Roosevelt Hospital, 26; N. Y. Infant Asylum, 3.
157	42.67	151	House of Rest for Consumptives, 4; Home for Incurables, 2.
64	32.81	62	Mt. St. Vincent's Academy, 1; Twenty-fourth Precinct, 1.
7,342	32.63	6,070	Total Deaths in Public Institutions.................................... 1,272

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Twelve Weeks and Two Days ending Saturday, March 27, 1875.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	..	3	4	..	1	1	..	1	..	2	12
Second	..	..	..	2	..	..	..	..	..	..	1	3
Third	..	..	1	..	1	..	..	1	..	..	2	5
Fourth	2	..	1	10	7	2	..	..	..	1	4	27
Fifth	1	..	..	5	2	3	..	..	..	1	5	17
Sixth	2	1	6	8	10	3	..	3	1	1	3	38
Seventh	4	..	12	26	17	2	..	..	4	..	9	74
Eighth	4	..	7	17	10	10	..	..	3	3	7	61
Ninth	1	..	7	27	7	4	..	1	2	3	7	59
Tenth	7	2	8	24	17	7	..	1	8	1	7	82
Eleventh	18	3	6	28	12	14	1	3	8	4	14	111
Twelfth	9	1	12	27	15	5	..	1	9	1	55	135
Thirteenth	6	2	3	21	9	3	..	1	2	..	7	54
Fourteenth	..	1	5	8	5	..	..	3	3	1	3	29
Fifteenth	6	..	1	10	5	..	..	2	3	..	5	32
Sixteenth	2	..	4	21	6	4	..	1	2	1	9	50
Seventeenth	22	3	7	44	26	14	1	1	19	4	17	158
Eighteenth	4	1	14	30	18	9	..	..	3	2	8	89
Nineteenth	235	1	15	75	28	18	1	20	52	7	54	506
Twentieth	11	1	22	72	21	10	..	3	7	7	25	179
Twenty-first	11	1	13	36	9	3	1	3	10	5	25	117
Twenty-second	13	..	19	70	21	10	..	9	9	4	25	180
Twenty-third	1	..	12	11	1	5	..	2	2	2	7	43
Twenty-fourth	..	..	1	9	..	2	..	1	1	..	6	20
Totals	359	17	179	585	247	129	5	56	149	48	307	2,081

Total Deaths from all Causes.	Total Deaths, Exclusive of those in Public Institutions.	Death-rate per 1,000 Yearly from all Causes and Exclusive of Institutions (in Wards), during Quarter.	REMARKS.
106	105	31.05	Castle Garden and Emigrant Depot, 1.
9	9	36.55	
23	23	32.70	
141	139	28.23	Fourth Precinct Station, 2.
87	81	21.50	Trinity Infirmary, 6.
198	177	37.71	City Prison, 2 ; Centre Street Hospital, 19.
295	294	27.26	Seventh Precinct Station, 1.
261	260	33.91	Eighth Precinct Station, 1.
292	269	23.03	St. Vincent's Hospital, 23.
302	301	30.48	Essex Street Prison 1.
444	365	24.19	St. Francis' Hospital, 79.
462	259	18.11	Reception Hospital, 99th street, 10 ; Infants' Hospital, 45 ; Soldiers' Retreat, 2 ; N. Y. City Asylum for the Insane, 42 ; Colored Orphan Asylum, 2 ; Ward's Island, 38 ; Randall's Island, 39 ; Bloomingdale Lunatic Asylum, 6 ; Sheltering Arms, 1 ; St. Joseph's Asylum, 3 ; House of Refuge, 1 ; House of Mercy, 1 ; House of Good Shepherd, 8 ; Deaf and Dumb Asylum, 3 ; Leake and Watts' Orphan Home, 1 ; Homœopathic Hospital, 1.
209	209	26.01	
187	185	29.59	Fourteenth Precinct Station, 2.
126	121	20.05	N. Y. Infant Asylum, 5.
273	268	23.50	St. Joseph's Home for the Aged, 5.
573	573	23.99	
362	352	24.33	Home for Respectable Aged and Indigent Females, 10.
1,257	566	20.17	Presbyterian Home, 8 ; German Hospital, 22 ; Mt. Sinai Hospital, 23 ; Foundling Hospital, 54 ; Women's Hospital, 6 ; City Lunatic Asylum, 18 ; Almshouse, 17 ; Penitentiary, 8 ; Small-pox, 217 ; Charity Hospital, 191 ; Epileptic and Paralytic Hospital, 5 ; Colored Home Hospital, 34 ; Nursery and Child's Hospital, 25 ; St. Luke's Hospital, 22 ; Workhouse, 10 ; Fever Hospital, 9 ; R. C. Orphan Asylum, 12 ; Hospital for Ruptured and Crippled, 6 ; Chapin Home, 3 ; Nineteenth Precinct Station, 1.
548	546	28.97	St. Elizabeth's Hospital, 1 ; Twentieth Precinct Station, 1.
556	318	22.87	Bellevue Hospital, 230 ; Home of the Little Sisters of the Poor, 3 ; Steamer Bellevue, 2 ; N. Y. Medical College and Hospital for Women, 1 ; Home of the Friendless, 1 ; Steamer Minnahannock, 1.
589	547	27.75	Roosevelt Hospital, 37 ; N. Y. Infant Asylum, 5.
159	152	26.11	House of Rest for Consumptives, 4 ; Home for Incurables, 3.
71	71	25.26	
7,530	6,190	25.14	Total Deaths in Public Institutions.................................. 1,340

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Thirteen Weeks ending Saturday, June 26, 1875.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	1	2	3	1	..	..	4	..	6	4	6	27
Second	..	..	..	1	..	..	..	..	..	..	..	1
Third	..	..	..	..	..	..	..	..	..	..	1	1
Fourth	3	..	2	10	7	3	..	..	4	..	5	34
Fifth	..	2	2	8	2	1	..	..	2	..	3	20
Sixth	1	..	..	6	6	3	..	2	7	..	..	25
Seventh	..	..	6	23	10	3	..	3	6	1	7	59
Eighth	3	..	7	21	7	4	..	1	10	..	7	60
Ninth	1	8	12	21	5	8	..	2	5	2	11	75
Tenth	14	2	2	28	10	3	..	4	9	1	6	79
Eleventh	47	8	12	28	7	9	..	1	13	4	10	139
Twelfth	7	1	8	28	7	5	..	3	33	2	60	154
Thirteenth	20	2	6	18	7	3	..	1	6	2	7	72
Fourteenth	2	1	4	19	3	1	..	1	5	..	6	42
Fifteenth	1	..	4	9	4	1	..	4	5	..	2	30
Sixteenth	5	..	9	6	5	5	..	1	4	1	8	44
Seventeenth	48	4	11	49	21	4	..	5	16	2	19	179
Eighteenth	5	4	8	41	13	4	..	..	4	5	9	93
Nineteenth	250	2	13	54	24	7	3	18	79	5	65	520
Twentieth	10	2	11	71	8	13	..	6	8	2	19	150
Twenty-first	11	4	9	40	5	6	..	10	5	5	15	110
Twenty-second	18	1	18	54	8	8	..	3	22	..	24	156
Twenty-third	2	..	11	6	4	7	..	..	3	..	7	40
Twenty-fourth	..	..	..	2	..	2	..	1	..	..	1	6
Totals	449	43	158	544	163	100	7	66	252	36	298	2,116

Total Deaths from all Causes.	Total Deaths, Exclusive of those in Public Institutions.	Death-rate per 1,000 Yearly from all Causes, and Exclusive of Institutions (in Wards), during Quarter.	REMARKS.
130	119	33.29	Castle Garden and Emigrant Depot, 11.
10	10	39.53	
13	13	18.09	
153	153	29.37	
89	86	21.54	Trinity Infirmary, 3.
139	123	24.77	City Prison, 3; Home of Industry, 3; Centre Street Hospital, 10.
246	245	21.47	Seventh Precinct Station, 1.
213	212	26.12	Eighth Precinct Station, 1.
302	269	21.78	St. Vincent's Hospital, 31; Jefferson Market Prison, 1; Ninth Precinct Station, 1.
256	256	24.52	
466	392	24.55	St. Francis Hospital, 74.
448	216	14.27	Reception Hospital, 99th street, 15; Infants' Hospital, 107; Soldiers' Retreat, 2; N. Y. City Asylum for the Insane, 37; Sheltering Arms, 1; Colored Orphan Asylum, 2; Ward's Island, 38; Randall's Island, 11; Bloomingdale Lunatic Asylum, 9; House of Mercy, 1; St. Joseph's Asylum, 2; House of Refuge, 1; Idiot Asylum, Randall's Island, 2; N. Y. Juvenile Asylum, 1; Union Home and School, 1; House of Good Shepherd, 2.
209	209	24.57	
152	150	22.67	R. C. Orphan Asylum, 1; Fourteenth Precinct Station, 1.
113	111	17.39	N. Y. Infant Asylum, 1; Protestant Half-orphan Asylum, 1.
215	210	17.41	Samaritan Home for the Aged, 2; St. Joseph's Home for the Aged, 3.
569	568	22.46	Seventeenth Precinct Station, 1.
321	319	20.85	Home for Respectable Aged and Indigent Females, 1; Potter's Home, 1.
1,244	497	16.74	Presbyterian Home, 6; German Hospital, 24; Mt. Sinai Hospital, 19; Foundling Hospital, 99; Women's Hospital, 3; City Lunatic Asylum, 35; Almshouse, 23; Penitentiary, 10; Small-pox, 242; Charity Hospital, 167; Epileptic and Paralytic Hospital, 3; Nineteenth Precinct Station, 2; Baptist Home, 4; Colored Home Hospital, 44; Nursery and Child's Hospital, 16; St. Luke's Hospital, 38; Workhouse, 1; Fever Hospital, 6; R. C. Orphan Asylum, 2; Hospital for Ruptured and Crippled, 2; Home for Aged Females, 1.
507	496	24.87	Home for Aged Poor, 1; St. Elizabeth's Hospital, 6; St. Vincent's de Paul, 1; Twentieth Precinct Station, 1; Twenty-ninth Precinct Station, 1; Orphan Asylum, 1.
525	308	20.94	Bellevue Hospital, 212; in Ambulances, 3; Home of the Friendless, 1; Steamer en route to Island, 1.
537	484	23.20	Roosevelt Hospital, 41; N. Y. Infant Asylum, 9; Twenty-second Precinct Station, 2; N. Y. Orphan Asylum, 1.
116	113	18.58	House of Rest for Consumptives, 3.
59	58	19.53	Thirty-fourth Precinct Station, 1.
7,032	5,617	21.50	Total Deaths in Public Institutions.................................. 1,415

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Thirteen Weeks ending Saturday, September 25, 1875.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	7	1	4	..	..	1	2	44	..	2	61
Second	..	..	1	1	1	..	..	..	2	..	..	5
Third	..	..	..	1	..	..	..	..	3	..	1	5
Fourth	..	1	2	4	3	2	..	2	61	..	7	82
Fifth	..	1	1	4	..	..	..	1	50	..	4	61
Sixth	1	..	3	7	3	..	..	2	60	1	7	84
Seventh	..	..	9	14	2	2	..	2	134	..	10	173
Eighth	1	1	1	6	1	8	..	1	98	2	4	123
Ninth	1	..	2	17	4	8	..	9	115	2	7	165
Tenth	6	..	2	23	2	10	2	6	134	2	11	198
Eleventh	25	3	6	26	13	6	..	12	224	1	14	330
Twelfth	6	6	3	36	3	5	..	14	191	4	95	363
Thirteenth	8	..	2	9	4	3	..	..	104	1	4	135
Fourteenth	..	1	1	14	3	4	..	3	67	3	6	102
Fifteenth	1	..	..	7	..	3	1	2	28	1	8	51
Sixteenth	..	2	4	18	6	2	..	4	94	..	7	137
Seventeenth	45	10	7	44	11	5	2	5	306	2	15	452
Eighteenth	1	3	3	16	6	5	..	3	154	1	12	204
Nineteenth	173	1	8	58	12	10	..	21	460	5	42	790
Twentieth	4	8	5	50	4	14	1	10	207	2	21	326
Twenty-first	6	..	2	43	7	1	..	5	117	3	17	201
Twenty-second	5	10	8	62	8	11	..	6	236	2	24	372
Twenty-third	1	1	1	15	1	2	1	4	78	..	11	115
Twenty-fourth	1	..	..	8	1	1	..	2	20	..	7	40
Total	285	55	72	487	95	102	8	116	2,987	32	336	4,575

Total Deaths from all Causes.	Total Deaths, Exclusive of those in Public Institutions.	Death-rate per 1,000 (Yearly) from all Causes, and Exclusive of Institutions, in Wards, during the Quarter.	REMARKS.
146	141	39.44	Castle Garden and Emigrant Depot, 5.
14	14	55.33	
20	19	26.44	N. Y. Hospital, 1.
185	184	35.34	Fourth Precinct Station, 1.
130	124	31.09	Fifth Precinct Station, 1; Trinity Infirmary, 5.
186	170	34.24	City Prison, 4; Home of Industry, 2; Centre Street Hospital, 9; Sixth Precinct Station, 1.
385	385	33.74	
261	259	31.91	Eighth Precinct Station, 2.
352	321	25.98	St. Vincent's Hospital, 29; Twenty-eighth Precinct Station, 1; Home for Aged, 1.
398	395	37.83	Tenth Precinct Station, 2; Ludlow Street Jail, 1.
634	576	36.08	St. Francis' Hospital, 57; Eleventh Precinct Station, 1.
715	454	30.00	Reception Hospital, 99th street, 7; Infants' Hospital, 128; Soldiers' Retreat, 2; N. Y. City Asylum for the Insane, 38; Colored Orphan Asylum, 3; Ward's Island, 63; Randall's Island, 4, Bloomingdale Lunatic Asylum, 5; Twelfth Precinct Station, 1; St. Joseph's Asylum, 2; House of Refuge, 2; Idiot Asylum, Randall's Island, 3; House of Good Shepherd, 2; Homœopathic Hospital, 1.
241	241	28.33	
217	216	32.66	Fourteenth Precinct Station, 1.
114	109	16.63	Fifteenth Precinct Station, 1; N. Y. Infant Asylum, 4.
278	273	22.64	St. Joseph's Home for the Aged, 5.
821	820	32.45	Seventeenth Precinct Station, 1.
392	392	25.62	
1,486	799	26.95	Presbyterian Home, 8; German Hospital, 18; Mt. Sinai Hospital, 13; Foundling Hospital, 105; City Lunatic Asylum, 40; Almshouse, 26; Penitentiary, 1; Small-pox, 165; Charity Hospital, 187; Epileptic and Paralytic Hospital, 1; Nineteenth Precinct Station, 1; Chapin Home, 2; Colored Home Hospital, 29; Nursery and Child's Hospital, 32; St. Luke's Hospital, 34; Workhouse, 11; Children's Fold, 1; Fever Hospital, 8; R. C. Orphan Asylum, 3; Hospital for Ruptured and Crippled, 2.
647	641	32.14	St. Elizabeth's Hospital, 3; St. Mary's Hospital, 1; Twentieth Precinct Station, 1; Twenty-ninth Precinct Station, 1.
533	367	24.95	Bellevue Hospital, 164; in Ambulances, 2.
748	700	33.56	Roosevelt Hospital, 39; Old Ladies' Home, 1; N. Y. Infant Asylum, 6; Twenty-second Precinct Station, 2.
184	175	28.79	House of Rest for Consumptives, 3; Home for Incurables, 5; Thirty-second Precinct Station, 1.
80	79	26.61	Mt. St. Vincent's Academy, 1.
9,167	7,854	30.15	Total Deaths in Public Institutions 1,313

DEATHS FROM ZYMOTIC DISEASES.

NEW YORK.—Deaths from Small-pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Typhoid Fever, Typhus Fever, Diarrhœal Maladies, and other Zymotic Diseases, Registered during the Thirteen Weeks and Six Days ending Friday, December 31, 1875.

Wards.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	All Diarrhœal Diseases.	Cerebro-Spinal Fever.	Other Zymotic Diseases.	Total Deaths from Zymotic Diseases.
First	..	1	1	9	3	..	..	..	1	..	1	16
Second	..	..	2	..	..	..	..	..	..	1	..	3
Third	..	..	1	1	1	..	..	..	..	..	..	3
Fourth	1	2	1	6	7	2	..	1	9	..	2	31
Fifth	1	..	..	1	2	3	..	4	3	..	4	18
Sixth	1	..	2	11	8	1	..	2	1	..	7	33
Seventh	4	1	7	22	9	9	..	2	13	4	10	81
Eighth	2	..	..	16	11	2	1	2	9	1	3	47
Ninth	2	..	6	45	9	1	..	3	12	2	8	88
Tenth	2	2	7	22	5	5	..	1	21	1	6	72
Eleventh	6	1	9	28	21	4	1	11	17	1	14	113
Twelfth	3	8	3	48	18	3	..	7	23	1	55	169
Thirteenth	5	6	7	19	13	3	..	3	8	..	4	68
Fourteenth	3	4	6	14	1	2	..	4	15	2	5	56
Fifteenth	1	..	3	14	3	..	..	3	3	1	6	34
Sixteenth	..	..	9	18	7	1	..	5	11	1	9	61
Seventeenth	11	7	6	40	26	4	3	10	27	1	7	142
Eighteenth	9	..	6	32	14	2	..	4	13	1	9	90
Nineteenth	124	15	6	102	26	11	1	23	75	7	33	423
Twentieth	2	2	6	54	19	8	..	6	25	3	17	142
Twenty-first	4	2	7	62	9	4	1	4	17	1	16	127
Twenty-second	6	1	8	85	24	10	..	8	28	2	22	194
Twenty-third	..	..	1	40	14	1	..	7	13	..	11	87
Twenty-fourth	..	..	1	24	3	..	..	..	5	..	6	39
Total	187	52	105	713	253	76	7	110	349	30	255	2,137

Total Deaths from all Causes.	Total Deaths. Exclusive of those in Public Institutions.	Death-rate per 1,000 (Yearly) from all Causes, and Exclusive of Institutions, in Wards, during the Quarter.	Remarks.
91	88	32.08	Castle Garden and Emigrant Depot, 3.
12	12	44.47	
19	6	8.00	House of Relief, Chambers street, 13.
153	153	27.56	
108	106	24.95	Trinity Infirmary, 2.
149	141	26.63	City Prison, 5; Home of Industry, 3.
291	291	23.93	
215	213	24.30	Eighth Precinct Station, 2.
293	267	20.29	St. Vincent's Hospital, 24; Home for Old Men and Aged Couples, 1; Ninth Precinct Station, 1.
236	235	21.12	Essex Street Prison, 1.
439	370	21.74	St. Francis' Hospital, 69.
493	310	19.22	Reception Hospital, 99th street, 7; Infants' Hospital, 78; N. Y. City Asylum for the Insane, 27; Homœopathic Hospital, 18; Colored Orphan Asylum, 1; Ward's Island, 35; Randall's Island, 6; Twenty-third Precinct Station, 1; House of Refuge, 1; Idiot Asylum, Randall's Island, 2; N. Y. Juvenile Asylum, 1; House of Good Shepherd, 2; Deaf and Dumb Asylum, 2; St. Luke's Old Ladies' Home, 2.
216	216	23.81	
197	195	27.65	Lying-in Asylum, 1; Fourteenth Precinct Station, 1.
123	117	17.20	Fifteenth Precinct Station, 1; N. Y. Infant Asylum, 5.
217	211	16.42	Home for the Blind, 1; St. Joseph's Home for the Aged, 5.
523	521	19.34	Seventeenth Precinct Station, 1; Eye Infirmary, 1.
308	303	18.74	Home for Respectable Aged and Indigent Females, 3; Eighteenth Precinct Station, 1; Homœopathic College, 1.
1,118	592	18.70	Presbyterian Home, 8; German Hospital, 20; Mt. Sinai Hospital, 15; Foundling Hospital, 60; Orphan Asylum, 1; Women's Hospital, 6; City Lunatic Asylum, 18; Almshouse, 26; Penitentiary, 6; Small-pox, 115; Blind Asylum, 1; Charity Hospital, 149; Epileptic and Paralytic Hospital, 1; Home for Aged Hebrews, 2; Colored Home Hospital, 24; Nursery and Child's Hospital, 20; St. Luke's Hospital, 29; Workhouse, 12; Chapin Home, 1; Fever Hospital, 10; R. C. Orphan Asylum, 2.
467	463	21.53	St. Elizabeth's Hospital, 3; St. Mary's, 1.
487	304	19.39	Bellevue Hospital, 182; in Ambulance, 1.
585	530	23.83	Roosevelt Hospital, 47; N. Y. Infant Asylum, 7; Home for Old Ladies, 1.
169	162	25.50	House of Rest for Consumptives, 4; Home for Incurables, 3.
71	68	21.47	Catholic Protectory, 1; Mt. St. Vincent's Academy, 1; Thirty-third Precinct Station, 1.
6,980	5,874	21.15	Total Deaths in Public Institutions.................................. 1,105

ABSTRACT OF THE MORTALITY IN FIRST QUARTER OF 1874.

Classes of Causes and certain Zymotic Diseases.

Diseases.	1873.	1874.	Average for the First Quarter of the Five Years preceding 1874.
Zymotic diseases	1,644	1,550	1,626.6
Constitutional diseases	1,628	1,457	1,576.4
Local diseases	2,790	2,663	2,780.2
Developmental diseases	514	425	448.0
Deaths by violence	239	233	224.6
Total deaths	6,815	6,328	6,655.8
Small-pox	67	19	162.6
Measles	73	94	106.2
Scarlatina	242	322	306.8
Diphtheria	169	334	106.4
Croup	237	186	170.8
Whooping cough	67	104	100.2
Typhus fever	7	6	24.0

Diseases.	1873.	1874.	Average for the First Quarter of the Five Years preceding 1874.
Typhoid fever	55	63	73.0
Cerebro-spinal fever	87	39	35.4
Diarrhœal diseases	267	113	215.2
Erysipelas	83	49	61.0
Gout	10	3	2.2
Rheumatism	50	44	26.4
Cancer	99	111	87 8
Phthisis	1,126	967	1,068.4
Diseases of nervous system	720	619	778.8
Heart diseases	211	19[illegible]	216.4
Pneumonia	708	734	684.2
Bronchitis	343	338	292 2
Bright's disease and nephritis	247	250	234.8
Puerperal diseases	159	110	106.0
Suicides	28	28	25.8
Deaths in institutions	1,283	1,029	1,266.2
Persons 70 years old and over	390	406	352.6
Children under 5 years of age	2,910	2,764	2,980.4

ABSTRACT OF THE MORTALITY IN SECOND QUARTER OF 1874.

Classes of Causes and certain Zymotic Diseases.

Diseases.	1873.	1874.	Average for the Second Quarter of the Five Years preceding 1874.
Zymotic diseases	1,654	1,652	2,057.6
Constitutional diseases	1,538	1,492	1,498.4
Local diseases	2,604	2,614	2,573.0
Developmental diseases	482	446	428.6
Deaths by violence	305	344	302.2
Total deaths	6,583	6,548	6,859.8
Small-pox	36	91	183.4
Measles	90	122	145.0
Scarlatina	275	239	276.2
Diphtheria	184	314	95.4
Croup	154	122	118.8
Whooping cough	61	101	94.2
Typhus fever	14	....	23.0

Diseases.	1873.	1874.	Average for the Second Quarter of the Five Years preceding 1874.
Typhoid fever	56	42	55.6
Cerebro-spinal fever	97	46	122.2
Diarrhœal diseases	396	232	613.8
Erysipelas	60	62	56.0
Gout	1	2	.8
Rheumatism	63	48	34.8
Cancer	92	110	89 8
Phthisis	1,055	1,009	955.6
Diseases of nervous system	668	627	788.8
Heart diseases	324	235	224.6
Pneumonia	685	737	557.2
Bronchitis	263	260	243.0
Bright's disease and nephritis	257	216	236.6
Puerperal diseases	133	131	101.0
Suicides	33	55	29.0
Deaths in institutions	1,175	1,163	1,343.0
Persons 70 years old and over	355	397	340.8
Children under 5 years of age	2,828	2,818	3,231.8

ABSTRACT OF THE MORTALITY IN THIRD QUARTER OF 1874.

CLASSES OF CAUSES AND CERTAIN ZYMOTIC DISEASES.

DISEASES.	1873.	1874.	Average for the Third Quarter of the Five Years preceding 1874.
Zymotic diseases	4,330	4,116	3,859.2
Constitutional diseases	1,636	1,472	1,652.2
Local diseases	2,236	2,095	2,229.8
Developmental diseases	459	459	442.6
Deaths by violence	322	367	345.6
Total deaths	8,983	8,509	8,529.4
Small-pox	4	106	56.0
Measles	87	81	97.6
Scarlatina	202	166	147.4
Diphtheria	316	320	116.4
Croup	99	75	71.4
Whooping cough	76	161	101.2
Typhus fever	8	3	17.4

DISEASES.	1873.	1874.	Average for the Third Quarter of the Five Years preceding 1874.
Typhoid fever	100	67	105.8
Cerebro-spinal fever	67	38	44.6
Diarrhœal diseases	3,045	2,736	2,781.0
Erysipelas	30	25	17.8
Gout	3	3	.8
Rheumatism	29	36	22.0
Cancer	137	90	92.2
Phthisis	930	916	937.2
Diseases of nervous system	722	617	844.0
Heart diseases	193	186	167.6
Pneumonia	328	322	292.8
Bronchitis	157	158	150.4
Bright's disease and nephritis	235	223	212.4
Puerperal diseases	71	88	70.8
Suicides	28	52	32.6
Deaths in institutions	1,209	1,294	1,259.6
Persons 70 years old and over	355	354	328.4
Children under 5 years of age	5,488	5,131	5,073.0

ABSTRACT OF THE MORTALITY IN FOURTH QUARTER OF 1874.

CLASSES OF CAUSES AND CERTAIN ZYMOTIC DISEASES.

DISEASES.	1873.	1874.	Average for the Fourth Quarter of the Five Years preceding 1874.
Zymotic diseases	1,965	2,396	1,621.6
Constitutional diseases	1,491	1,600	1,513.8
Local diseases	2,524	2,619	2,350.8
Developmental diseases	428	424	404.0
Deaths by violence	295	304	274.6
Total deaths	6,703	7,342	6,164.8
Small-pox	10	268	67.2
Measles	56	22	51.6
Scarlatina	326	152	224.2
Diphtheria	482	697	176.0
Croup	242	211	194.4
Whooping cough	64	123	75.8
Typhus fever	10	5	17.8

DISEASES.	1873.	1874.	Average for the Fourth Quarter of the Five Years preceding 1874.
Typhoid fever	83	103	105.4
Cerebro-spinal fever	39	35	20.4
Diarrhœal diseases	389	487	397.4
Erysipelas	31	33	26.6
Gout	....	1	1.2
Rheumatism	38	39	26.6
Cancer	98	105	90.6
Phthisis	1,023	1,142	1,036.4
Diseases of nervous system	593	585	618.4
Heart diseases	235	254	204.4
Pneumonia	607	605	515.4
Bronchitis	303	307	274.8
Bright's diseases	246	286	219.0
Puerperal diseases	74	66	81.2
Suicides	28	45	28.2
Deaths in institutions	1,083	1,272	1,077.8
Persons 70 years old and over	395	447	356.4
Children under 5 years of age	2,956	3,241	2,621.2

DEATHS IN THE CITY OF

In Quinquennial Periods, during the Twelve

Months.	Nativity.				Colored.		Under 1 Year.		1—		2—	
	United States.		Foreign.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four 3/7 weeks ending Jan. 31..	768	683	386	342	21	15	275	229	113	95	65	60
Four weeks ending Feb. 28..	698	602	376	388	14	21	275	208	97	86	43	56
" " " Mar. 28..	655	665	416	349	20	32	238	210	100	84	61	51
Total by Sexes............	2,121	1,950	1,178	1,079	55	68	788	647	310	265	169	167
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	33.52	30.81	18.61	17.05	.87	1.07	12.45	10.22	4.90	4.19	2.67	2.64
Total of both Sexes........	4,071		2,257		123		1,435		575		336	
Percentage of both Sexes on Total Mortality of Quarter...	64.33		35.66		1.94		22.67		9.09		5.31	

DEATHS IN THE CITY OF NEW YORK

Months.	35—		40—		45—		50—		55—		60—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four 3/7 weeks ending Jan. 31..	51	57	52	34	61	35	55	43	33	22	36	31
Four weeks ending Feb. 28..	58	52	52	42	60	39	47	33	26	26	35	28
" " " Mar. 28..	64	59	55	35	53	44	61	32	37	21	35	24
Total by Sexes............	173	168	159	111	174	118	163	108	96	69	106	83
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	2.73	2.65	2.51	1.75	2.75	1.86	2.58	1.70	1.52	1.09	1.66	1.31
Total of both Sexes........	341		270		292		271		165		189	
Percentage of both Sexes on Total Mortality of Quarter...	5.38		4.26		4.61		4.28		2.61		2.97	

NEW YORK FROM ALL CAUSES,

AND 3/7 WEEKS ENDING SATURDAY, MARCH 28, 1874.

3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
50	28	39	37	542	449	61	66	18	17	19	19	32	37	54	57	57	50
51	32	18	17	484	399	37	58	15	13	26	20	32	53	61	61	48	51
42	53	24	27	465	425	44	54	13	17	21	30	38	51	50	59	49	59
143	113	81	81	1,491	1,273	142	178	46	47	66	69	102	141	165	177	154	160
2 26	1.79	1.28	1.28	23.56	20.12	2.24	2.81	.73	.74	1.04	1.09	1.61	2.23	2.61	2.80	2.43	2.53
256		162		2,764		320		93		135		243		342		314	
4.05		2.56		43.68		5.05		1.47		2.13		3.84		5.41		4.96	

FROM ALL CAUSES, ETC.—(*Continued*).

65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total, both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
29	29	20	36	20	24	6	12	5	6	2	1	..	..	1	..	1,154	1,025	2,179
45	23	18	33	15	24	8	18	2	11	3	5	1	1	1	..	1,074	990	2,064
29	28	37	28	8	15	8	17	3	11	1	3	..	1	..	1	1,071	1,014	2,085
103	80	75	97	43	63	22	47	10	28	6	9	1	2	2	1	3,299	3,029	6,328
1.63	1.26	1.18	1.53	.68	1.00	.35	.74	.16	.44	.09	.14	.01	.03	.03	.01	52.13	47.87	....
183		172		106		69		38		15		3		3		6,328		....
2.89		2.71		1.68		1.09		.60		.23		.04		.04		100.00		....

DEATHS IN THE CITY OF

In Quinquennial Periods, during the

Months.	Nativity.				Colored.		Under 1 Year.		1—		2—	
	United States.		Foreign.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four weeks ending April 25......	706	638	431	401	19	20	279	203	102	95	43	45
Five " " May 30......	850	723	509	425	32	21	341	249	117	89	49	62
Four " " June 27......	663	583	315	304	6	18	274	243	98	78	52	41
Total by Sexes............	2,219	1,944	1,255	1,130	57	59	894	695	317	262	144	148
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	33.89	29.69	19.16	17.26	.87	.90	13.65	10.61	4.84	4.00	2.20	2.26
Total of both Sexes........	4,163		2,385		116		1,589		579		292	
Percentage of both Sexes on Total Mortality of Quarter...	63.58		36.42		1.77		24.26		8.84		4.46	

DEATHS IN THE CITY OF NEW YORK

Months.	35—		40—		45—		50—		55—		60—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four weeks ending April 25......	58	45	53	39	64	37	54	36	40	39	34	36
Five " " May 30......	77	66	82	58	70	52	70	40	42	26	43	32
Four " " June 27.....	45	50	39	44	35	30	49	23	24	20	27	21
Total by Sexes............	180	161	174	141	169	119	173	99	106	85	104	89
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	2.75	2.46	2.66	2.15	2.58	1.82	2.64	1.51	1.62	1.30	1.58	1.36
Total of both Sexes........	341		315		288		272		191		193	
Percentage of both Sexes on Total Mortality of Quarter...	5.21		4.81		4.40		4.15		2.92		2.94	

NEW YORK FROM ALL CAUSES,

Thirteen Weeks ending Saturday, June 27, 1874.

3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
46	28	28	23	498	394	51	69	19	24	20	24	35	51	45	67	61	65
38	40	31	32	576	472	59	61	22	18	32	32	51	50	79	56	61	64
28	26	17	21	469	409	57	45	24	13	23	16	42	42	45	54	46	45
112	94	76	76	1,543	1,275	167	175	65	55	75	72	128	143	169	177	168	174
1.71	1.44	1.16	1.16	23.56	19.47	2.55	2.67	.99	.84	1.14	1.10	1.95	2.18	2.58	2.70	2.57	2.66
206		152		2,818		342		120		147		271		346		342	
3.15		2.32		43.03		5.22		1.83		2.24		4.13		5.28		5.23	

FROM ALL CAUSES, Etc.—(*Continued*).

65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
35	25	32	39	21	24	13	12	2	6	2	6	..	..	..	1	1,137	1,039	2,176
33	36	27	36	19	22	9	17	3	5	3	2	1	3	..	..	1,359	1,148	2,507
16	20	18	26	12	15	7	4	..	6	..	3	..	1	..	..	978	887	1,865
84	81	77	101	52	61	29	33	5	17	5	11	1	4	..	1	3,474	3,074	6,548
1.28	1.24	1.18	1.54	.79	.93	.44	.50	.08	.26	.08	.17	.02	.06	..	.02	53.05	46.95	....
165		178		113		62		22		16		5		1		6,548		....
2.52		2.72		1.72		.94		.34		.25		0.8		.02		100.00		....

DEATHS IN THE CITY OF

In Quinquennial Periods, during the Thirteen

Months.	Nativity.				Colored.		Under 1 Year.		1—		2—	
	United States.		Foreign.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four weeks ending July 25......	1,077	1,051	348	301	13	23	650	633	134	147	45	51
Five " " Aug. 29......	1,346	1,222	447	428	39	25	795	698	198	216	55	44
Four " " Sept. 26......	851	732	368	338	13	20	410	341	165	128	53	52
Total by Sexes............	3,274	3,005	1,163	1,067	65	68	1,855	1,672	497	491	153	147
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	38.47	35.32	13.67	12.54	.76	.80	21.80	19.65	5.84	5.77	1.80	1.73
Total of both Sexes........	6,279		2,230		133		3,527		988		300	
Percentage of both Sexes on Total Mortality of Quarter...	73.79		26.21		1.56		41.45		11.61		3.53	

DEATHS IN THE CITY OF NEW YORK

Months.	35—		40—		45—		50—		55—		60—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Four weeks ending July 25......	53	48	46	31	50	26	39	27	29	20	23	28
Five " " Aug. 29......	67	66	54	36	72	35	50	48	39	30	31	33
Four " " Sept. 26......	59	57	52	35	45	39	50	34	34	24	28	14
Total by Sexes............	179	171	152	102	167	100	139	109	102	74	82	75
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	2.10	2.01	1.79	1.20	1.96	1.18	1.63	1.28	1.19	.87	.96	.88
Total of both Sexes........	350		254		267		248		176		157	
Percentage of both Sexes on Total Mortality of Quarter...	4.11		2.99		3.14		2.91		2.06		1.84	

NEW YORK FROM ALL CAUSES,

Weeks ending Saturday, September 26, 1874.

3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
30	28	33	18	892	877	51	42	26	14	28	23	40	38	45	46	55	44
42	30	24	23	1,114	1,011	46	46	21	20	38	25	56	45	63	74	50	66
31	21	14	22	673	564	51	49	17	8	15	21	39	46	41	45	53	45
103	79	71	63	2,679	2,452	148	137	64	42	81	69	135	130	149	165	158	155
1.21	.93	.83	.74	31.48	28.82	1.74	1.62	.75	.49	.95	.81	1.59	1.52	1.75	1.94	1.86	1.82
182		134		5,131		285		106		150		265		314		313	
2.14		1.57		60.30		3.36		1.24		1.76		3.11		3.69		3.68	

FROM ALL CAUSES, Etc.—(*Continued*).

65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
11	21	17	25	14	21	2	12	2	5	2	3	..	1	..	..	1,425	1,352	2,777
36	31	24	15	13	37	11	19	6	6	2	1	..	4	..	1	1,793	1,650	3,443
25	15	22	29	11	21	1	10	1	8	..	3	2	..	..	3	1,219	1,070	2,289
72	67	63	69	38	79	14	41	9	19	4	7	2	5	..	4	4,437	4,072	8,509
.84	.79	.74	.81	.45	.92	.16	.48	.11	.22	.05	.08	.03	.06	..	.05	52.14	47.86	....
139		132		117		55		28		11		7		4		8,509		....
1.63		1.55		1.37		.64		.33		.13		.09		.05		100.00		....

DEATHS IN THE CITY OF

In Quinquennial Periods, during the Thirteen

Months.	Nativity.				Colored.		Under 1 Year.		1—		2—	
	United States.		Foreign.									
	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Five weeks ending Oct. 31......	916	857	460	404	28	18	348	371	149	131	59	43
Four " " Nov. 28......	700	646	419	365	20	12	243	208	87	100	64	54
Four 5/7 " " Dec. 31......	862	757	493	463	26	31	317	241	119	90	103	68
Total by Sexes............	2,478	2,260	1,372	1,232	74	61	908	820	355	321	226	165
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	33.75	30.78	18.69	16.78	1.01	.83	12.37	11.17	4.83	4.37	3.08	2.25
Total of both Sexes........	4,738		2,604		135		1,728		676		391	
Percentage of both Sexes on Total Mortality of Quarter...	64.53		35.47		1.84		23.54		9.20		5.33	

DEATHS IN THE CITY OF NEW YORK

Months.	35—		40—		45—		50—		55—		60—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Five weeks ending Oct. 31......	78	64	71	35	46	46	63	40	45	29	44	37
Four " " Nov. 28......	62	44	53	30	57	36	50	40	32	40	43	40
Four 5/7 " " Dec. 31......	69	72	54	58	63	48	61	42	51	39	36	38
Total by Sexes............	209	180	178	123	166	130	174	122	128	108	123	115
Percentage of Deaths in each period of life and by Sexes on Total Mortality of Quarter...	2.85	2.45	2.42	1.68	2.26	1.77	2.37	1.66	1.74	1.47	1.67	1.57
Total of both Sexes........	389		301		296		296		236		238	
Percentage of both Sexes on Total Mortality of Quarter...	5.30		4.10		4.03		4.03		3.21		3.24	

NEW YORK FROM ALL CAUSES,

AND 5/7 WEEKS ENDING THURSDAY, DECEMBER 31, 1874.

3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
39	32	36	26	631	603	70	69	24	20	36	29	55	49	65	69	74	61
40	44	30	31	464	437	65	61	15	16	25	18	40	40	59	52	73	45
53	43	32	42	624	484	53	83	21	20	24	23	55	62	57	60	86	60
132	119	98	99	1,719	1,524	188	213	60	56	85	70	150	151	181	181	233	166
1.80	1.61	1.33	1.35	23.41	20.76	2.56	2.90	.82	.76	1 16	.95	2.04	2.06	2.46	2.46	3.17	2.26
251		197		3,243		401		116		155		301		362		399	
3.41		2.68		44.17		5.46		1.58		2.11		4.10		4.93		5.43	

FROM ALL CAUSES, ETC.—(*Continued*).

65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
27	26	20	29	13	21	6	21	5	5	1	5	1	3	1	..	1,376	1,261	2,637
22	26	23	36	21	20	9	14	3	11	2	3	1	2	..	..	1,119	1,011	2,130
32	29	31	42	21	24	10	19	6	11	..	5	1	1	..	..	1,355	1,220	2,575
81	81	74	107	55	65	25	54	14	27	3	13	3	6	1	..	3,850	3,492	7,342
1.10	1.10	1.01	1.46	.75	.88	.34	.74	.19	.37	.04	.18	.04	.08	.01	..	..	..	....
162		181		120		79		41		16		9		1		7,342		....
2.20		2.47		1.63		1.08		.56		.22		.12		.01		100.00		....

DEATHS IN THE CITY OF

In Quinquennial Periods, during the

Mortality by Quarters. 1874.	Nativity.				Colored.		Under 1 Year.		1—		2—	
	United States.		Foreign.									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First Quarter	2,121	1,950	1,178	1,079	55	68	788	647	310	265	169	167
Second Quarter	2,219	1,944	1,255	1,130	57	59	894	695	317	262	144	148
Third Quarter	3,274	3,005	1,163	1,067	65	68	1,855	1,672	497	491	153	147
Fourth Quarter	2,478	2,260	1,372	1,232	74	61	908	820	355	321	226	165
Total for Year	10,092	9,159	4,968	4,508	251	256	4,445	3,834	1,479	1,339	692	627
Total both Sexes	19,251		9,476		507		8,279		2,818		1,319	

DEATHS IN THE CITY OF NEW YORK

Mortality by Quarters. 1874.	35—		40—		45—		50—		55—		60—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
First Quarter	173	168	159	111	174	118	163	108	96	69	106	83
Second Quarter	180	161	174	141	169	119	173	99	106	85	104	89
Third Quarter	179	171	152	102	167	100	139	109	102	74	82	75
Fourth Quarter	209	180	178	123	166	130	174	122	128	108	123	115
Total for Year	741	680	663	477	676	467	649	438	432	336	415	362
Total both Sexes	1,421		1,140		1,143		1,087		768		777	

NEW YORK FROM ALL CAUSES,

Year ending Thursday, December 31, 1874.

3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
143	113	81	81	1,491	1,273	142	178	46	47	66	69	102	141	165	177	154	160
112	94	76	76	1,543	1,275	167	175	65	55	75	72	128	143	169	177	168	174
103	79	71	63	2,679	2,452	148	137	64	42	81	69	135	130	149	165	158	155
132	119	98	99	1,719	1,524	188	213	60	56	85	70	150	151	181	181	233	166
490	405	326	319	7,432	6,524	645	703	235	200	307	280	515	565	664	700	713	655
895		645		13,956		1,348		435		587		1,080		1,364		1,368	

FROM ALL CAUSES, Etc.—(*Continued*).

65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
103	80	75	97	43	63	22	47	10	28	6	9	1	2	2	1	3,299	3,029	6,328
84	81	77	101	52	61	29	33	5	17	5	11	1	4	..	1	3,474	3,074	6,548
72	67	63	69	38	79	14	41	9	19	4	7	2	5	..	4	4,437	4,072	8,509
81	81	74	107	55	65	25	54	14	27	3	13	3	6	1	..	3,850	3,492	7,342
360	309	289	374	188	268	90	175	38	91	18	40	7	17	3	6	15,060	13,667	28,727
649		663		456		265		129		58		24		9		28,727		....

AN ABSTRACT EXHIBITING THE ANNUAL COMPARATIVE MORTALITY IN FIVE CONSECUTIVE YEARS.

By Classes of Causes and from Twenty-two of the Principal Diseases.

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Zymotic diseases....................	8,364	11,815	9,593	9,802	10,968	10,108.4
Constitutional diseases..................	6,263	6,604	6,293	6,023	6,090	6,254.6
Local diseases......................	9,280	10,903	10,154	9,987	10,760	10,216.8
Developmental diseases...................	1,765	2,004	1,883	1,667	1,704	1,804.6
Deaths by violence......................	1,304	1,321	1,161	1,248	1,187	1,244.2
Total deaths..................	26,976	32,647	29,084	28,727	30,709	29,628.6
Small-pox................................	805	929	117	484	1,280	723.0
Measles..............................	409	463	306	319	167	332.8
Scarlatina...............................	791	990	1,045	879	514	843.8
Diphtheria..............	238	446	1,151	1,665	2,329	1,165.8
Croup....................................	466	675	732	594	758	645.0
Whooping cough........................	465	565	268	489	407	438.8
Typhus fever.............................	65	86	39	14	28	46.4
Typhoid fever............................	239	364	294	275	347	303.8
Cerebro-spinal fever.....................	48	782	290	158	146	284.8
Diarrhœal diseases	3,653	5,197	4,097	3,569	3,738	4,050.8
Erysipelas	145	185	204	169	170	174.6
Gout	4	4	14	9	7	7.6
Rheumatism	103	152	180	167	171	154.6
Cancer	335	392	425	416	416	396.8
Phthisis pulmonalis	4,181	4,274	4,134	4,034	4,172	4,159.0
Diseases of nervous system...............	2,677	3,480	2,702	2,451	2,436	2,749.2
Heart diseases...........................	811	914	940	867	1,075	921.4
Pneumonia................................	1,834	2,150	2,328	2,398	2,802	2,302.4
Bronchitis...............................	964	1,040	1,068	1,065	1,111	1,049.6
Bright's disease and nephritis....	1,030	1,029	985	975	1,107	1,025.2
Puerperal diseases.......................	362	454	430	306	311	372.6
Suicides	114	144	118	180	155	142.2
Deaths in institutions....................	5,155	5,800	4,755	4,759	5,174	5,128.6
Deaths of persons 70 years old and over...	1,296	1,553	1,495	1,604	1,730	1,535.6
Deaths of children under 5 years of age...	12,971	16,188	14,182	13,956	14,848	14,429.0

COMPARATIVE MORTALITY IN THE WINTER QUARTER IN FIVE CONSECUTIVE YEARS.

By Classes of Causes and from Twenty-two of the Principal Diseases.

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Zymotic diseases	1,606	2,010	1,644	1,550	2,081	1,778.2
Constitutional diseases	1,671	1,653	1,628	1,457	1,600	1,601.8
Local diseases	2,647	2,963	2,790	2,663	3,123	2,837.2
Developmental diseases	457	517	514	425	481	478.8
Deaths by violence	241	263	239	233	245	244.2
Total deaths.	6,622	7,406	6,815	6,328	7,530	6,940.2

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Small-pox	208	320	67	19	359	194.6
Measles	241	106	73	94	17	106.2
Scarlatina	274	301	242	322	179	263.6
Diphtheria	89	93	169	334	585	254.0
Croup	133	201	237	186	247	200.8
Whooping cough	54	247	67	104	129	120.2
Typhus fever	12	37	7	6	5	13.4
Typhoid fever	47	59	55	63	56	56.0
Cerebro-spinal fever	9	108	87	39	48	58.2
Diarrhœal diseases	255	228	267	113	149	202.4
Erysipelas	54	64	83	49	66	63.2
Gout	....	1	10	3	....	2.8
Rheumatism	32	29	50	44	58	42.6
Cancer	84	93	99	111	104	98.2
Phthisis Pulmonalis	1,195	1,155	1,126	967	1,145	1,117.6
Diseases of the nervous system	685	809	720	619	588	684.2
Heart diseases	211	256	230	204	254	231.0
Pneumonia	642	772	708	734	1,035	778.2
Bronchitis	283	326	343	338	382	334.4
Bright's disease and nephritis	267	243	247	250	284	258.2
Puerperal diseases	103	136	157	111	124	126.2
Suicides	22	38	28	28	30	29.2
Deaths in institutions	1,229	1,464	1,288	1,030	1,340	1,270.2
Deaths of persons 70 years old and over	344	392	390	406	492	404.8
Deaths of children under 5 years of age	2,984	3,283	2,910	2,764	3,131	3,014.4

COMPARATIVE MORTALITY OF THE SPRING QUARTER IN FIVE CONSECUTIVE YEARS.

By Classes of Causes and from Twenty-two of the Principal Diseases.

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Zymotic diseases	1,970	3,180	1,654	1,652	2,116	2,114.4
Constitutional diseases	1,506	1,687	1,538	1,492	1,498	1,544.2
Local diseases	2,358	3,014	2,604	2,614	2,639	2,645.8
Developmental diseases	472	500	482	446	437	467.4
Deaths by violence	315	356	305	344	342	332.4
Total deaths	6,621	8,737	6,583	6,548	7,032	7,104.2
Small-pox	304	459	36	91	449	267.8
Measles	106	187	90	122	43	109.6
Scarlatina	196	367	275	239	158	247.0
Diphtheria	49	86	184	314	544	235.4
Croup	105	114	154	122	163	131.6
Whooping cough	65	190	61	101	100	103.4
Typhus fever	21	17	14	....	8	12.0
Typhoid fever	39	62	56	42	65	52.8
Cerebro-spinal fever	19	492	97	46	36	138.0
Diarrhœal diseases	746	867	396	232	252	498.6
Erysipelas	50	73	60	62	54	59.8
Gout	1	1	1	2	2	1.4
Rheumatism	32	46	63	48	57	49.2
Cancer	83	107	92	109	115	101.2
Phthisis Pulmonalis	1,006	1,048	1,055	1,009	1,042	1,032.0
Diseases of the nervous system	706	970	668	627	621	718.4
Heart diseases	215	236	345	182	254	246.4
Pneumonia	447	621	685	737	703	638.6
Bronchitis	246	287	263	260	268	264.8
Bright's disease and nephritis	291	292	257	216	265	264.2
Puerperal diseases	90	131	130	131	102	116.8
Suicides	29	34	33	55	56	41.4
Deaths in institutions	1,465	1,672	1,175	1,163	1,415	1,378.0
Deaths of persons 70 years old and over	326	392	355	397	408	375.6
Deaths of children under 5 years of age	3,054	4,253	2,828	2,818	3,049	3,200.4

COMPARATIVE MORTALITY FOR THE SUMMER QUARTER IN FIVE CONSECUTIVE YEARS.

By Classes of Causes and from Twenty-two of the Principal Diseases.

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Zymotic diseases	3,302	4,834	4,330	4,116	4,575	4,231.4
Constitutional diseases	1,601	1,730	1,636	1,472	1,511	1,590.0
Local diseases	2,033	2,545	2,236	2,095	2,348	2,251.4
Developmental diseases	445	507	459	459	397	453.4
Deaths by violence	452	409	322	367	336	377.2
Total deaths	7,833	10,025	8,983	8,509	9,167	8,903.4
Small-pox	164	74	4	106	285	126.6
Measles	49	135	87	81	55	81.4
Scarlatina	138	132	202	166	72	142.0
Diphtheria	46	87	316	320	487	251.2
Croup	58	87	99	75	95	82.8
Whooping cough	160	86	76	161	102	117.0
Typhus fever	16	19	8	3	8	10.8
Typhoid fever	70	140	100	67	116	98.6
Cerebro-spinal fever	12	135	67	38	32	56.8
Diarrhœal diseases	2,291	3,575	3,045	2,736	2,987	2,926.8
Erysipelas	18	23	30	25	21	23.4
Gout	1	....	3	3	2	1.8
Rheumatism	14	40	29	36	32	30.2
Cancer	78	93	136	90	104	100.2
Phthisis Pulmonalis	973	1,004	930	916	917	948.0
Diseases of the nervous system	694	1,096	722	617	691	764.0
Heart diseases	168	183	203	186	216	191.2
Pneumonia	248	256	328	322	382	307.2
Bronchitis	172	152	157	158	159	159.6
Bright's disease and nephritis	243	244	235	223	247	238.4
Puerperal diseases	67	83	70	85	61	73.2
Suicides	33	45	28	52	41	39.8
Deaths in institutions	1,330	1,536	1,209	1,294	1,313	1,336.4
Deaths of persons 70 years old and over	305	385	355	354	385	356.8
Deaths of children under 5 years of age	4,456	5,948	5,488	5,131	5,605	5,325.6

COMPARATIVE MORTALITY OF THE AUTUMNAL QUARTER IN FIVE CONSECUTIVE YEARS.

By Classes of Causes and from Twenty-two of the Principal Diseases.

Diseases.	1871.	1872.	1873.	1874.	1875.	Average for 5 Years.
Zymotic diseases	1,486	1,791	1,965	2,396	2,137	1,955.0
Constitutional diseases	1,485	1,534	1,491	1,600	1,481	1,518.2
Local diseases	2,242	2,381	2,524	2,617	2,650	2,482.8
Developmental diseases	391	480	428	424	448	434.2
Deaths by violence	296	293	295	305	264	290.6
Total deaths	5,900	6,479	6,703	7,342	6,980	6,680.8
Small-pox	129	76	10	268	187	134.0
Measles	13	35	56	22	52	35.6
Scarlatina	183	190	326	152	105	191.2
Diphtheria	54	180	482	697	713	425.2
Croup	170	273	242	211	253	229.8
Whooping cough	186	42	64	123	76	98.2
Typhus fever	16	13	10	5	7	10.2
Typhoid fever	83	103	83	103	110	96.4
Cerebro-spinal fever	8	47	39	35	30	31.8
Diarrhœal diseases	361	527	389	487	350	422.8
Erysipelas	23	25	31	33	20	26.4
Gout	2	2	....	1	3	1.6
Rheumatism	25	37	38	39	24	32.6
Cancer	89	99	98	104	89	95.8
Phthisis Pulmonalis	1,012	1,067	1,023	1,142	1,068	1,062.4
Diseases of the nervous system	592	606	593	585	534	582.0
Heart diseases	217	219	260	262	260	243.6
Pneumonia	497	501	607	605	682	578.4
Bronchitis	263	275	303	307	302	290.0
Bright's disease and nephritis	229	250	246	286	311	264.4
Puerperal diseases	102	104	73	65	77	84.2
Suicides	30	27	28	45	28	31.6
Deaths in institutions	1,131	1,128	1,083	1,272	1,106	1,144.0
Deaths of persons 70 years old and over	321	384	395	447	445	398.4
Deaths of children under 5 years of age	2,477	2,704	2,960	3,241	3,063	2,889.0

DEATHS OCCURRING EACH WEEK, BY CLASSES.

First Quarter, Ending March 28, 1874.

Classes.	Weeks.													Total each Class.
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	
	Week ending January 3.	Week ending January 10.	Week ending January 17.	Week ending January 24.	Week ending January 31.	Week ending February 7.	Week ending February 14.	Week ending February 21.	Week ending February 28.	Week ending March 7.	Week ending March 14.	Week ending March 21.	Week ending March 28.	
Zymotic	62	128	131	114	113	127	146	109	117	132	128	128	114	1,549
Constitutional	43	111	127	108	108	120	122	122	131	107	123	121	114	1,457
Local	84	230	198	201	191	198	219	242	194	220	233	228	226	2,664
Developmental	18	38	32	26	37	42	36	40	33	25	27	34	37	425
Violence	9	12	24	19	16	21	14	23	8	21	24	19	23	233
Total	216	519	512	468	465	508	537	536	483	505	535	530	514	6,328

Second Quarter, ending June 27, 1874.

Classes.	Weeks.													Total each Class.
	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	
	Week ending April 4.	Week ending April 11.	Week ending April 18.	Week ending April 25.	Week ending May 2.	Week ending May 9	Week ending May 16.	Week ending May 23.	Week ending May 30.	Week ending June 6.	Week ending June 13.	Week ending June 20.	Week ending June 27.	
Zymotic	134	129	131	127	117	119	121	104	123	122	125	139	161	1,652
Constitutional	128	138	127	109	130	120	118	109	109	118	94	93	99	1,492
Local	226	255	243	214	240	199	202	180	190	198	167	148	152	2,614
Developmental	34	32	36	29	37	40	37	38	29	36	30	33	35	446
Violence	19	29	21	15	32	21	31	28	33	29	28	29	29	344
Total	541	583	558	494	556	499	509	459	484	503	444	442	476	6,548

Third Quarter, ending September 26, 1874.

Classes.	Weeks.													Total each Class.
	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	
	Week ending July 4.	Week ending July 11.	Week ending July 18.	Week ending July 25.	Week ending August 1.	Week ending August 8.	Week ending August 15.	Week ending August 22.	Week ending August 29.	Week ending September 5.	Week ending September 12.	Week ending September 19.	Week ending September 26.	
Zymotic	163	276	481	487	402	362	350	387	229	271	250	239	219	4,116
Constitutional	77	128	104	132	102	107	127	115	117	109	118	103	133	1,472
Local	148	166	168	175	180	154	165	169	154	163	156	147	151	2,096
Developmental	38	35	34	29	44	40	41	39	30	37	30	31	30	458
Violence	26	35	37	38	16	28	42	25	18	26	31	20	25	367
Total	452	640	824	861	744	691	725	735	548	606	585	540	558	8,509

DEATHS OCCURRING EACH WEEK, BY CLASSES—(*Continued*).

FOURTH QUARTER, ENDING DECEMBER 31, 1874.

Classes.	Weeks.														Total each Class.
	40.	**41.**	**42.**	**43.**	**44.**	**45.**	**46.**	**47.**	**48.**	**49.**	**50.**	**51.**	**52.**		
	Week ending October 3.	Week ending October 10.	Week ending October 17.	Week ending October 24.	Week ending October 31.	Week ending November 7.	Week ending November 14.	Week ending November 21.	Week ending November 28.	Week ending December 5.	Week ending December 12.	Week ending December 19.	Week ending December 26.	Week ending December 31.	
Zymotic..........	219	179	188	179	180	187	189	154	142	159	132	177	185	126	2,396
Constitutional	142	115	139	109	111	122	105	114	97	112	110	125	106	93	1,600
Local.............	145	164	176	163	173	173	202	226	201	205	185	209	225	170	2,617
Developmental ...	28	32	15	30	33	32	40	30	30	28	29	40	38	19	424
Violence	26	20	25	22	24	21	25	24	16	16	20	20	25	21	305
Total......	560	510	543	503	521	535	561	548	486	520	476	571	579	429	7,342

DEATHS OCCURRING EACH WEEK, BY CLASSES.

FIRST QUARTER, ENDING MARCH 27, 1875.

Classes.	Weeks.													Total each Class.
	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**	**12.**	**13.**	
	Week ending January 2.	Week ending January 9.	Week ending January 16.	Week ending January 23.	Week ending January 30.	Week ending February 6.	Week ending February 13.	Week ending February 20.	Week ending February 27.	Week ending March 6.	Week ending March 13.	Week ending March 20.	Week ending March 27.	
Zymotic...............	53	164	236	158	164	174	154	196	165	179	163	122	152	2,080
Constitutional..........	26	117	131	126	118	115	141	137	116	149	130	142	150	1,598
Local.................	85	272	264	278	265	242	258	233	237	275	232	236	249	3,126
Developmental.........	10	35	42	38	33	27	45	34	40	39	55	49	34	431
Violence..............	7	24	23	24	24	20	13	22	24	11	16	15	22	245
Total...........	181	612	696	624	604	578	611	622	582	653	596	564	607	7,530

DEATHS OCCURRING EACH WEEK, BY CLASSES—(*Continued*).

Second Quarter, ending June 26, 1875.

Classes.	Weeks.													Total each Class.
	14.	**15.**	**16.**	**17.**	**18.**	**19.**	**20.**	**21.**	**22.**	**23.**	**24.**	**25.**	**26.**	
	Week ending April 3.	Week ending April 10.	Week ending April 17.	Week ending April 24.	Week ending May 1.	Week ending May 8.	Week ending May 15.	Week ending May 22.	Week ending May 29.	Week ending June 5.	Week ending June 12.	Week ending June 19.	Week ending June 26.	
Zymotic	138	158	147	156	137	160	145	206	145	177	158	184	205	2,116
Constitutional	118	130	136	151	128	131	104	103	108	113	83	96	98	1,499
Local	235	247	211	233	219	217	230	192	175	160	145	168	208	2,640
Developmental	36	38	30	42	25	36	33	39	41	28	20	39	29	436
Violence	18	20	17	35	18	34	32	19	28	36	30	23	31	341
Total	545	593	541	617	527	578	544	559	497	514	436	510	571	7,032

Third Quarter, ending September 25, 1875.

Classes.	Weeks.													Total each Class.
	27.	**28.**	**29.**	**30.**	**31.**	**32.**	**33.**	**34.**	**35.**	**36.**	**37.**	**38.**	**39.**	
	Week ending July 3.	Week ending July 10.	Week ending July 17.	Week ending July 24.	Week ending July 31.	Week ending August 7.	Week ending August 14.	Week ending August 21.	Week ending August 28.	Week ending September 4.	Week ending September 11.	Week ending September 18.	Week ending September 25.	
Zymotic	224	372	532	548	454	380	336	338	263	352	284	272	220	4,575
Constitutional	100	130	133	137	111	101	112	118	105	107	123	118	116	1,511
Local	178	210	221	191	162	179	170	169	154	178	159	171	206	2,348
Developmental	35	32	29	31	34	24	28	36	25	35	22	27	39	397
Violence	30	30	19	32	25	34	28	24	25	25	24	22	18	336
Total	567	774	934	939	786	718	674	685	572	697	612	610	599	9,167

Fourth Quarter, ending December 31, 1875.

Classes.	Weeks.														Total each Class.
	40.	**41.**	**42.**	**43.**	**44.**	**45.**	**46.**	**47.**	**48.**	**49.**	**50.**	**51.**	**52.**		
	Week ending October 2.	Week ending October 9.	Week ending October 16.	Week ending October 23.	Week ending October 30.	Week ending November 6.	Week ending November 13.	Week ending November 20.	Week ending November 27.	Week ending December 4.	Week ending December 11.	Week ending December 18.	Week ending December 25.	Week ending December 31.	
Zymotic	213	184	166	146	134	141	124	139	146	161	139	143	145	156	2,137
Constitutional	139	122	106	92	94	103	97	100	108	101	94	109	119	97	1,481
Local	172	159	179	188	175	169	199	183	182	196	217	210	209	212	2,650
Developmental	36	21	20	35	29	36	30	31	44	30	46	29	33	28	448
Violence	23	19	15	22	19	14	17	22	18	17	15	20	19	24	264
Total	583	505	486	483	451	463	467	475	498	505	511	511	525	517	6,980

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class I.—ZYMOTIC DISEASES.																														
Order 1 —*Miasmatic.*																														
Small-pox and Varioloid.......... 6 ✓	201	143	80	60	9	7	57	42	33	31	21	16	12	9	12	3	135	101	16	20	9	6	9	7	30	21	30	17	23	6
Varicella.......... .... 25 ✓	2	1	....	....	..	..	1	....	..	..	..	..	..	1	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..
Measles.......................... 7 ✓	161	143	6	9	..	3	49	46	60	49	27	18	16	14	2	8	154	135	10	11	1	1	..	1	2	..	..	..	..	2
Scarlatina........................ 8 ✓	444	367	32	36	6	2	34	29	79	56	97	74	82	60	55	47	347	266	104	102	15	15	4	5	1	6	3	6	..	2
✓ Diphtheria...................... 10 ✓	743	843	32	47	6	6	56	58	155	139	125	146	126	118	94	114	556	575	178	266	18	27	4	6	4	2	2	4	4	2
✓ Croup .... 10 ✓	309	267	8	10	3	..	51	32	72	73	81	67	53	40	31	25	288	239	29	39	..	1	..	1	..	..	..	..	..	..
Quinsy (Tonsillitis, Angina Maligna, etc.)........ .... 109 ✓	18	22	1	1	..	..	3	2	6	5	1	1	4	2	..	1	14	11	4	7	..	3	..	..	..	1	..	..	..	..
Parotitis......................... 13 ✓	3	....	....	....	..	..	2	....	..	..	..	..	..	..	..	..	2	....	1	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough.................. 9 ✓	209	270	5	5	4	4	110	151	58	69	20	29	16	14	9	6	213	269	1	4	..	..	..	..	..	..	..	..	..	..
Erysipelas .... 21 ✓	75	43	32	19	2	2	59	31	2	4	1	..	1	1	..	..	63	36	2	..	1	1	2	2	2	3	2	1	3	..
Pyæmia .... 41 ✓	2	1	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..
Puerperal Fever.................. 146 ✓	....	27	....	60	..	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	10	..	22	..	24	..	17
Carbuncle .... 152 ✓	....	1	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Dysentery................. 164 ✓	69	52	32	36	1	3	25	25	22	11	5	2	3	..	4	..	59	38	7	..	2	..	3	1	5	3	3	1	2	7
Diarrhœa 113	1,466	1,392	66	100	18	23	1,135	1,096	279	249	33	27	8	6	4	6	1,459	1,384	9	5	2	2	..	1	..	..	2	7	4	10
Cholera.................. 15 ✓ } 3,569	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (Morbus)........... 15 ✓	7	8	27	19	..	1	....	....	..	..	..	..	..	..	1	..	1	....	2	2	1	1	..	2	1	..	1	1	3	4
Entero-Colitis.............. 113 ✓	163	124	2	4	2	3	128	91	30	28	4	3	1	1	..	..	163	123	..	..	1	1	..	..	..	..	..	1	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class I.—ZYMOTIC DISEASES.																																
Order 1.—*Miasmatic.*																																
Small-pox and Varioloid	10	11	9	5	1	3	5	3	..	1	2	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	281	203	484	1.68
Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Measles	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	167	152	319	1.11
Scarlatina	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	476	403	879	3.06
Diphtheria	2	2	2	..	1	1	1	1	1	1	1	1	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	775	890	1,665	5.80
Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	317	278	595	2.07
Quinsy (Tonsillitis, Angina Maligna, etc.)	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	19	23	42	.15
Parotitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
Whooping Cough	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	214	275	489	1.70
Erysipelas	4	3	3	2	5	..	10	2	2	..	3	3	1	1	1	3	3	1	..	4	..	..	..	..	..	..	..	..	107	62	169	.59
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Puerperal Fever	..	10	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	87	87	.30
Carbuncle	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Dysentery	3	6	1	4	3	4	3	3	4	4	2	2	1	5	1	4	1	3	1	3	..	..	..	..	..	..	..	..	101	88	189	.66
Diarrhœa	3	1	2	3	5	5	7	8	5	6	8	11	7	6	6	14	8	8	1	12	2	5	1	2	1	..	..	2	1,532	1,492	3,024	10.53
Cholera 3,569	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
Cholera (Morbus)	6	4	3	2	3	3	2	1	3	3	6	2	..	..	1	1	1	..	..	1	..	..	..	..	..	..	..	..	34	27	61	.21
Entero-Colitis	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	165	128	293	1.02

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY. United States.		NATIVITY. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4 -		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																														
Order 1.—*Miasmatic.*																														
Cerebro-Spinal Fever.......... 24 ✓	70	67	15	6	..	1	15	24	3	8	10	5	8	3'	9	5	45	45	13	12	3	6	4	3	5	2	5	2	4	1
Typhus Fever..................... 2 ✓	3	4	6	1	..	..	....	....	..	..	1	1	..	1	..	..	1	2	..	1	2	1	2	..	1	..	..	..	2	..
Typhoid Fever.............. 11	68	56	76	75	1	..	....	3	1	3	..	..	3	1	1	..	5	7	13	10	13	11	19	18	28	22	12	15	17	8
Continued Fever.................. 1	2	3	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	1	1	..	..	..	1	..	1
Remittent Fever....... .... 5 ✓	54	56	17	21	3	..	4	6	7	9	6	8	7	5	4	2	28	30	9	6	2	2	3	6	3	2	2	2	4	1
Intermittent Fever................ 5 ✓	29	41	24	10	..	..	8	8	5	11	3	..	3	3	..	2	19	24	7	6	..	3	1	..	1	1	2	1	2	3
Typho-Malarial Fever............ 1 ✓	12	9	3	6	1	..	....	1	..	..	1	..	..	..	..	..	1	1	1	2	2	1	2	2	1	..	1	3	2	1
Congestive (Malig. Int.) Fever...... 5 ✓	2	1	2	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	1	..	..	2	..	..	..	..	1	..	..
Relapsing Fever................ .. 3 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Goitre............................ 60 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Influenza.......................... 11 ✓	1	1	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Total Miasmatic Diseases......	4,113	3,942	470	530	56	58	1,740	1,647	812	745	436	397	343	278	226	219	3,557	3,286	407	494	73	83	57	66	84	85	65	88	70	66
Order 2.—*Enthetic or Inoculated.*																														
Syphilis.......................... 35 ✓	57	63	19	7	5	8	47	51	1	2	..	..	..	..	..	..	48	53	1	..	..	..	1	..	2	4	6	8	6	1
Malignant Pustule............... 27 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Hydrophobia...................... 28 ✓	3	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	1	1	..	..	..	..	1	.	..	..
Total Enthetic or Inoculated Diseases...............	60	65	19	8	5	8	47	51	1	2	..	..	..	..	..	..	48	53	2	..	1	1	1	..	2	4	7	9	6	1

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS I.—ZYMOTIC DISEASES.																																
Order 1.—*Miasmatic.*																																
Cerebro-Spinal Fever........	..	1	..	..	2	1	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	85	73	158	.55
Typhus Fever....................	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	5	14	.05
Typhoid Fever....................	8	7	5	5	7	5	7	8	3	3	2	6	3	..	2	4	..	2	..	..	..	..	..	..	..	..	..	..	144	131	275	.91
Continued Fever..................	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	7	.02
Remittent Fever..................	2	4	3	1	5	4	3	1	2	..	..	6	1	3	2	3	..	4	2	2	..	..	..	..	..	..	..	..	71	77	148	.52
Intermittent Fever...............	2	1	1	4	4	1	2	..	2	1	4	..	..	2	5	..	1	2	..	2	..	..	..	..	..	..	..	..	53	51	104	.36
Typho-Malarial Fever.............	1	..	..	1	2	3	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	15	15	30	.10
Congestive (Malig. Int.) Fever.....	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6	.02
Relapsing Fever..................	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Goitre...........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Influenza........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Total Miasmatic Diseases......	42	54	30	32	40	30	45	29	22	20	29	31	17	19	22	32	14	24	5	24	2	5	1	2	1	..	..	2	4,583	4,472	9,055	31.52
Order 2.—*Enthetic or Inoculated.*																																
Syphilis.........................	4	2	4	1	1	..	2	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	76	70	146	.51
Malignant Pustule................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Hydrophobia......................	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5	.02
Total Enthetic or Inoculated Diseases................	4	3	4	1	1	..	2	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	79	73	152	.53

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continuea*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class I.—ZYMOTIC DISEASES.																														
Order 3.—*Dietic.* 160 - 15																														
Inanition (Privation, etc.) 205	161	144	3	3	2	1	155	136	4	5	2	1	..	..	..	..	161	142	1	1	..	1	..	..	..	..	..	..	..	..
Scurvy 58	2	2	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	1	..	..	..	..	..	..	..
Alcoholism *a.* Intemperance 66	31	10	79	32	..	1	....	....	..	..	..	..	1	..	..	..	1	....	..	..	..	..	..	..	2	3	14	3	15	6
Alcoholism *b.* Delirium Tremens	21	1	48	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	2	..	14	1	9	2
Purpura 69	8	8	3	3	..	..	4	2	..	2	..	..	..	2	..	..	4	6	..	1	1	..	1	..	..	..	..	..	..	..
Total Dietic Diseases	223	165	136	43	2	2	159	138	4	7	2	1	1	2	..	..	166	148	1	3	1	1	2	..	4	3	28	4	24	8
Order 4.—*Parasitic.* 30																														
Aphthæ	11	11	1	1	1	..	10	11	1	1	..	..	..	..	..	..	11	12	..	..	..	..	..	..	..	..	..	..	..	..
Hydatid of Uterus 129	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Worms 116	1	2	....	....	..	..	....	....	..	..	..	..	1	1	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..
Total Parasitic Diseases	12	14	1	1	1	..	10	11	1	1	..	..	1	1	..	1	12	14	..	..	..	..	..	..	..	1	..	..	..	..
Total Zymotic Class	4,408	4,186	626	582	64	68	1,956	1,847	818	755	438	398	345	281	226	220	3,783	3,501	410	497	75	85	60	66	90	93	100	100	100	75
	8,594		**1,208**		**132**		**3,803**		**1,573**		**836**		**626**		**446**		**7,284**		**907**		**160**		**126**		**183**		**200**		**175**	

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class I.—ZYMOTIC DISEASES.																																
Order 3.—*Dietic.*																																
Inanition (Privation, etc.)	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	164	147	311	1.08
Scurvy	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	5	2	7	.02
Alcoholism *a.* Intemperance	22	12	15	4	15	3	13	6	3	1	5	2	3	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	110	42	152	.53
Alcoholism *b.* Delirium Tremens	18	2	7	1	8	..	8	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	69	6	75	.26
Purpura	1	1	1	..	..	.	1	1	..	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	11	11	22	.08
Total Dietic Diseases	43	15	24	5	25	3	22	7	4	2	7	3	4	1	4	3	..	1	..	1	..	..	..	..	..	..	..	..	359	208	567	1.97
Order 4.—*Parasitic.*																																
Aphthæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	12	12	24	.08
Hydatid of Uterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Worms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Total Parasitic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	13	15	28	.09
Total Zymotic Class.	89	73	58	38	66	33	69	36	27	22	36	34	21	20	27	35	14	26	5	25	2	5	1	2	1	..	..	2	5,034	4,768	9,802	34.12
	162		**96**		**99**		**105**		**49**		**70**		**41**		**62**		**40**		**30**		**7**		**3**		**1**		**2**		**9,802**		....	....

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Anæmia 50 ✓	9	10	2	2	..	..	8	7	..	..	..	..	..	1	..	..	8	8	..	..	..	..	..	..	..	1	..	1	..	..
Dropsy ✓	1	....	4	2	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	1
Gout 5 ✓	2	3	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	..	..
Rheumatism 5 ✓	42	31	49	45	2	2	....	....	..	..	..	..	2	..	1	1	3	1	7	6	4	9	6	5	3	3	9	3	7	6
Cancer of Abdomen (organ unknown) 49 ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Axilla 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Breast 47 ✓	1	18	....	38	..	1	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	1	..	3	..	8
" of Brain 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Bladder 49 ✓	....	....	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Coloid, Ascending Colon ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" " (of Cheek) 48 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cheek ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Colon 45 ✓	....	....	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cœcum 45 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cranium 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Eye 49 ✓	2	....	....	....	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" Epitheloma Crurus 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Anæmia	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	11	12	23	.08
Dropsy	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	5	2	7	.02
Gout	1	..	..	..	1	2	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	5	4	9	.03
Rheumatism	3	7	5	7	10	3	9	7	5	4	6	3	8	2	4	3	2	4	..	2	..	..	..	..	..	1	..	..	91	76	167	.58
Cancer of Abdomen (organ unknown)	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
" of Axilla	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Breast	..	4	..	6	..	7	..	7	..	7	..	8	..	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..	1	56	57	.20
" of Brain	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Bladder	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
" Coloid, Ascending Colon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" " (of Cheek)	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Cheek	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
" of Colon	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
" of Cœcum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Cranium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Eye	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
" Epitheloma Crurus	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Cancer of Face 48 ✓	1	....	3	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
" of Fallopian Tube 46 ✓	....	....	..	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Head 48 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Inguinal Gland 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Intestines 45 ✓	....	....	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ilium 45 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	.	..	..	..
" of Intra-Thoracic 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Jaw 43 ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Kidneys 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Liver 44 ✓	5	8	18	27	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	1	1	..	..	..	1	1
" of Leg 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lip 43 ✓	1	....	3	1	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Larynx 49 ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lumbar Region 45 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Left Side 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" " Abdominal Region 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lungs 49 ✓	....	2	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35— M.	35— F.	40— M.	40— F.	45— M.	45— F.	50— M.	50— F.	55— M.	55— F.	60— M.	60— F.	65— M.	65— F.	70— M.	70— F.	75— M.	75— F.	80— M.	80— F.	85— M.	85— F.	90— M.	90— F.	95— M.	95— F.	100 and Upwards. M.	100 and Upwards. F.	Total by Sexes. M.	Total by Sexes. F.	Total both Sexes.	Percentage of each Cause on Total.
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Cancer of Face	..	..	..	..	..	1	1	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	4	3	7	.02
" of Fallopian Tube	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Head	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Inguinal Gland	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Intestines	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	3	1	4	.01
" of Ilium	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Intra-Thoracic	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Jaw	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
" of Kidneys	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Liver	..	4	4	4	1	1	5	6	3	5	3	5	3	4	..	3	1	..	..	..	1	..	..	..	..	..	..	..	.23	35	58	.20
" of Leg	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Lip	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	4	1	5	.02
" of Larynx	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
" of Lumbar Region	..	..	..	..	.	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1	.003
" of Left Side	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" " Abdominal Region	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Lungs	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Cancer of Lower Jaw 43 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Mesentery 45 ✓	3	1	....	1	..	..	....	....	..	..	1	..	..	..	..	..	1	....	1	..	..	..	..	..	1	..	..	..	..	..
" of Mouth 43 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Maxillary Gland 43 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Neck 11 ✓	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ovaries 46 ✓	....	2	....	4	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Œsophagus 44 ✓	....	....	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Penis 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" " and Scrotum 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Peritoneum 45 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Parotid Gland 49 ✓	....	2	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	..	..
" of Rectum 45 ✓	1	2	5	3	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Scalp 48 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	..	..	..	..	..	..
" of Spinal Meninges 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Side 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Shoulder 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
" of Spine [illegible] ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Cancer of Lower Jaw	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Mesentery	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5	.02
" of Mouth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Maxillary Gland	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Neck	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
" of Ovaries	..	1	..	2	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	6	6	.02
" of Œsophagus	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
" of Penis	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" " and Scrotum	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Peritoneum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Parotid Gland	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
" of Rectum	..	1	..	..	1	2	1	..	..	1	1	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	6	5	11	.04
" of Scalp	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Spinal Meninges	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Side	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Shoulder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Cancer of Stomach 44 ✓	12	5	35	37	1	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	2	1	3	4	1
" of Testes 49 ✓	1	....	1	....	..	..	....	....	..	..	..	..	1	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Tongue 43 ✓	1	....	2	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Tibia, Vagina, and Groin 46 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh (Groin) 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Toe 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thorax 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
" of Thyroid Gland 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" in Iliac Region 45 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Uterus 46 ✓	...	25	....	80	..	..	....	....	..	.	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	8
" of Upper Jaw 113 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Cancerous Diseases	36	76	88	214	1	2	....	....	1	..	1	..	1	..	..	..	3	....	3	..	1	1	2	2	3	3	2	7	6	21
Fungus Hæmatodes (Medullary Cancer) ✓	....	....	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Lupus Exedens 36 ✓	3	1	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Noma (Cancrum Oris) 151 ✓	2	3	....	1	..	..	....	2	..	2	2	..	..	..	..	..	2	4	..	..	..	..	..	..	..	..	..	..	..	..
Total Diathetic Diseases	95	124	148	267	3	4	9	9	1	2	3	..	3	1	1	1	17	13	10	6	5	10	8	7	6	8	11	12	13	28

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Cancer of Stomach	2	4	3	2	5	3	7	4	7	5	7	7	4	7	4	2	2	1	..	..	..	1	..	..	..	..	..	..	47	42	89	.31
" of Testes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
" of Tongue	..	..	1	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	.01
" of Tibia, Vagina, and Groin	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Thigh	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Thigh (Groin)	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Toe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Thorax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Thyroid Gland	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" in Iliac Region	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Uterus	..	15	..	17	..	21	..	13	..	9	..	12	..	4	..	4	..	1	..	..	..	..	..	..	..	..	..	..	....	105	105	.36
" of Upper Jaw	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Total Cancerous Diseases	3	31	12	33	15	42	18	35	16	30	14	41	13	21	7	17	3	5	1	..	1	1	1	..	..	..	..	..	124	290	414	....
Fungus Hæmatodes (Medullary Cancer)	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
Lupus Exedens	..	..	1	..	..	..	..	..	2	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	5	1	6	.02
Noma (Cancrum Oris)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	6	.02
Total Diathetic Diseases	7	38	18	41	27	48	29	42	24	34	21	45	24	23	11	20	8	12	2	2	1	1	1	..	..	1	..	..	243	391	634	2.21

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 2.—*Tubercular.*																														
Hydrocephalus and Tubercular Meningitis.................. 3✓	345	268	6	8	7	5	167	120	105	78	32	26	17	14	13	10	334	248	7	23	2	1	4	1	1	..	..	..	1	..
Lumbar Abscess (Psoas Abscess, etc.) 311 ✓	....	1	2	1	..	..	...	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Phthisis Pulmonalis............... 31 ✓	681	729	1,415	1,209	47	44	19	23	21	23	15	8	5	8	5	5	65	67	15	32	20	29	103	107	235	237	291	296	293	263
Rachitis......................... 56 ✓	10	8	..	..	1	1	8	4	1	2	..	1	1	..	..	..	10	7	..	1	..	..	..	..	..	..	..	..	..	..
Scrofula ... . 36 ✓	31	22	2	1	1	1	20	12	2	3	1	2	1	1	..	1	24	19	3	2	2	1	1	..	..	..	..	..	1	..
Tabes Mesenterica and Marasmus.. 33 ✓	298	266	5	10	1	1	231	201	48	42	13	11	2	5	1	2	295	261	4	3	1	2	..	..	1	2	..	..	..	2
Other Tubercular Diseases........ 37 ✓	34	24	7	6	1	2	22	12	5	5	1	..	1	..	..	..	29	17	1	1	1	..	1	2	..	1	1	1	4	..
Total Tubercular Diseases. ...	1,399	1,318	1,437	1,235	58	54	467	372	182	153	62	48	27	28	19	18	757	619	30	62	26	33	109	110	237	240	293	297	299	265
Total Constitutional Class......	1,494	1,442	1,585	1,502	61	58	476	381	183	155	65	48	30	29	20	19	774	632	40	68	31	43	117	117	243	248	304	309	312	293
	2,936		**3,087**		**119**		**857**		**338**		**113**		**59**		**39**		**1,406**		**108**		**74**		**234**		**491**		**613**		**605**	
Class III.—LOCAL DISEASES.																														
Order 1.—*Nervous.*																														
Apoplexy......................... 74 ✓	87	66	139	140	4	3	7	2	1	..	..	..	..	..	..	1	8	3	..	..	1	2	..	..	4	2	4	5	6	5
Abscess of Brain.............. 70 ✓	2	1	....	....	..	..	2	..	..	1	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																																
Order 2.—*Tubercular.*																																
Hydrocephalus and Tubercular Meningitis	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	351	276	627	2.18
Lumbar Abscess (Psoas Abscess, etc.)	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
Phthisis Pulmonalis	258	236	217	171	175	135	156	110	84	79	82	63	48	38	28	35	22	22	2	11	1	4	1	2	..	1	..	..	2,096	1,938	4,034	14.04
Rachitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	8	18	.06
Scrofula	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33	23	56	.19
Tabes Mesenterica and Marasmus	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	2	1	1	..	1	..	..	..	..	..	..	..	..	303	276	579	2.02
Other Tubercular Diseases	..	2	1	2	..	1	1	1	..	..	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	41	30	71	.25
Total Tubercular Diseases	259	240	219	174	176	137	158	111	84	80	84	66	50	38	28	39	23	23	2	12	1	4	1	2	..	1	..	..	2,836	2,553	5,389	18.76
Total Constitutional Class	266	278	237	215	203	185	187	153	108	114	105	111	74	61	39	59	31	35	4	14	2	5	2	2	..	2	..	..	3,079	2,944	6,023	20.97
	544		**452**		**388**		**340**		**222**		**216**		**135**		**98**		**66**		**18**		**7**		**4**		**2**		....		**6,023**		....	....
CLASS III.—LOCAL DISEASES.																																
Order 1.—*Nervous.*																																
Apoplexy	13	9	15	12	26	17	33	20	29	19	15	19	25	19	15	33	19	19	9	10	3	10	..	1	1	1	..	..	226	206	432	1.50
Abscess of Brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES. Order 1.—*Nervous.*																														
Congestion of Brain.............74 ✓	85	63	12	16	..	..	47	31	19	15	7	9	2	3	1	1	76	59	5	3	2	..	..	..	1	..	1	2	1	1
Chorea.........................81 ✓	1	..	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	1	..	..
Convulsions...............79+80 ✓	356	311	1	3	2	5	284	237	51	58	13	8	5	3	3	3	356	309	1	3	..	..	..	1	..	..	..	..	..	1
Direct Effect of Solar Heat...194 ✓	1	1	14	3	..	1	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	1	1	..	..	3	1	2	..
Epilepsy.......................78 ✓	27	18	13	7	2	1	....	....	..	..	..	..	1	..	1	..	2	....	5	3	1	1	2	2	3	4	3	..	4	2
Embolism of Cerebral Artery...74 ✓	2	3	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Encephalitis...................70 ✓	40	27	14	2	2	1	15	15	7	6	2	..	3	3	4	..	31	24	2	2	2	..	2	..	1	..	1	..	2	1
Hemiplegia.....................75 ✓	7	4	16	11	1	..	....	....	..	..	..	..	..	..	1	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Insanity.......................72 ✓	6	10	22	21	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	1	3	2	4	2	2	1
Locomotor Ataxia...............72 ✓	2	4	2	1	..	..	..	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Lyssophobia....................28 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Laryngismus Stridulus..........98 ✓	10	12	....	....	..	..	8	7	2	1	..	1	..	..	..	1	10	10	..	2	..	..	..	..	..	..	..	..	..	..
Meningitis.....................71 ✓	261	239	37	26	5	5	105	91	64	71	18	24	19	14	11	11	217	211	21	18	8	7	2	..	6	3	3	2	3	3
Myelitis.......................73 ✓	....	....	5	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	1	2
Neuralgia......................82 ✓	....	2	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis......................75 ✓	24	21	28	28	2	2	....	1	..	..	..	..	..	..	..	..	....	1	..	1	..	..	1	..	1	..	..	..	..	4
Paraplegia.....................75 ✓	3	3	9	2	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	2	..	..	1	..	..
Softening of Brain.............53 ✓	21	14	44	23	1	1	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	1	..	1	1	3	3	1	2

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES. Order 1.—*Nervous.*																																
Congestion of Brain	2	..	..	3	3	1	1	..	..	2	..	1	1	1	2	2	..	3	1	1	1	..	..	..	..	..	..	..	97	79	176	.61
Chorea	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
Convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	357	314	671	2.33
Direct Effect of Solar Heat	3	1	..	..	2	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	4	19	.07
Epilepsy	3	1	4	2	4	2	1	2	..	1	3	..	2	1	1	1	1	1	1	1	..	..	..	..	..	1	..	..	40	25	65	.23
Embolism of Cerebral Artery	1	..	..	2	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	5	8	.03
Encephalitis	1	1	2	..	2	..	3	1	3	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	54	29	83	.29
Hemiplegia	1	..	2	..	..	..	..	1	4	2	5	2	2	3	6	3	1	1	..	1	..	1	1	1	..	..	..	..	23	15	38	.13
Insanity	2	5	4	4	5	2	1	1	..	3	2	..	2	3	3	1	..	4	..	1	..	..	..	..	..	..	..	..	28	31	59	.21
Locomotor Ataxia	..	..	1	..	1	..	1	..	..	2	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	5	9	.03
Lyssophobia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Laryngismus Stridulus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	12	22	.08
Meningitis	5	3	9	5	..	2	9	2	6	3	4	2	3	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	298	265	563	1.99
Myelitis	..	..	1	..	1	1	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5	10	.03
Neuralgia	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
Paralysis	4	..	6	3	2	3	4	2	5	5	7	..	7	6	4	4	4	11	4	5	2	2	..	1	..	1	1	..	52	49	101	.35
Paraplegia	2	..	..	..	1	..	2	1	..	..	..	..	1	..	1	1	2	1	..	..	..	1	..	..	..	..	..	..	12	5	17	.06
Softening of Brain	4	1	5	..	6	1	6	4	6	5	10	7	5	5	11	6	2	2	3	..	..	..	..	..	..	..	..	..	65	37	102	.35

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 1.—*Nervous.*																														
Sclerosis of Brain	....	1	2	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
" of Medulla Oblongata	1	...	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sciatica	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Tabes Dorsalis	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Tumor of Brain	5	4	4	4	..	1	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	3	1	1	4
Thrombosis of Cerebral Artery	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Basilar Artery	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Tetanus	1	...	....	....	..	..	....	....	..	..	..	..	..	..	..	.	....	....	1	..	..	..	..	..	..	..	..	..	..	..
Trismus Nascentium	23	13	....	....	..	..	23	13	..	..	..	..	..	..	..	..	23	13	..	..	..	..	..	..	..	..	..	..	..	..
Total Diseases of Nervous System	965	818	367	301	20	21	493	397	144	152	40	42	30	23	21	17	728	631	37	32	14	11	10	6	22	12	25	20	23	27
Order 2.—*Circulatory.*																														
Aneurism of Aorta	14	7	29	16	3	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	..	1	7	4	4	2
" of Carotid	...	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Heart	1	....	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	1
" of Innominata	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Popliteal	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 1.—*Nervous.*																																
Sclerosis of Brain ✓	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5	.02
" of Medulla Oblongata ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Sciatica ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Tabes Dorsalis ✓	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
Tumor of Brain ✓	2	1	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	8	17	.06
Thrombosis of Cerebral Artery ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Basilar Artery ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Tetanus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Trismus Nascentium ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23	13	36	.12
Total Diseases of Nervous System	43	23	50	33	57	32	66	34	55	43	47	34	52	44	46	55	29	43	19	19	6	14	1	3	1	3	1	..	1,332	1,119	2,451	8.53
Order 2.—*Circulatory.*																																
Aneurism of Aorta ✓	6	4	6	2	6	3	7	1	1	..	4	2	1	1	1	..	..	2	..	..	..	..	..	..	..	..	..	..	43	23	66	.23
" of Carotid ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Heart ✓	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
" of Innominata ✓	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Popliteal ✓	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 2.—*Circulatory.*																														
Aneurism of Right Subclavian Artery.............. 91	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thoracis..............	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Angina Pectoris.................. 9	5	4	6	1	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	1	..	1
Embolism of Pulmonary Artery... 9	3	4	....	2	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	2	..	..	..	2
" of Profunda Arteries of Thigh 9	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Heart................ 9	1	....	....	...	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Endocarditis........................ 85 90	5	3	3	2	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	1*	1	..	1	2	..	1	..	2	..
Epistaxis............................. 95	1	2	....	2	..	..	1	1	..	..	..	1	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..
Disease of the Heart.............. 90	14	21	25	25	1	3	3	....	..	..	1	..	..	..	..	..	4	....	1	..	..	1	3	2	..	7	2	2	3	1
Fatty Degeneration of the Heart.. 90	13	9	21	20	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	2	2	3
Hypertrophy of the Heart 90	36	44	68	41	..	..	2	2	..	..	3	..	..	..	..	..	5	2	2	3	3	5	3	5	2	1	5	8	8	3
Heart Clot.......................... 90	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Ossification of Arteries.......... 91	....	1	....	....	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Coronary Artery... 91	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	...
" of Semilunar Valves of Heart.......... 91	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Pericarditis........................ 87	11	18	28	16	1	1	1	1	..	..	..	1	1	..	..	..	2	2	..	1	2	..	..	1	3	4	1	3	3	3
Phlebitis........................... 93	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 2.—*Circulatory.*																																
Aneurism of Right Subclavian Artery	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Thoracis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Angina Pectoris	1	..	1	..	1	..	..	..	2	..	..	1	3	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	11	5	16	.06
Embolism of Pulmonary Artery	..	..	1	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	6	9	.03
" of Profunda Arteries of Thigh	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Heart	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Endocarditis	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	8	5	13	.05
Epistaxis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	4	5	.02
Disease of the Heart	1	2	3	2	1	3	8	4	2	1	4	3	2	5	3	6	1	6	1	..	..	1	..	..	..	..	..	..	39	46	85	.30
Fatty Degeneration of the Heart	3	1	2	2	4	5	6	2	5	4	3	..	4	2	2	5	2	3	1	..	..	..	..	..	..	..	..	..	34	29	63	.22
Hypertrophy of the Heart	7	5	10	5	11	5	12	6	7	8	8	8	10	8	3	7	7	4	1	2	..	..	..	..	..	..	..	..	104	85	189	.66
Heart Clot	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Ossification of Arteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Coronary Artery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Semilunar Valves of Heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Pericarditis	4	2	2	3	4	3	4	5	4	2	5	1	2	1	1	2	1	1	1	..	..	..	..	..	..	..	..	..	39	34	73	.25
Phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 2.—*Circulatory.*																														
Rupture of Right Auricle of Heart.. 90 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
" of Left Auricle of Heart... 90 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Syncope.......................... 90 ✓	3	2	....	1	..	..	3	2	..	..	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..
Syncope from Depressing Effect of Russian Bath................ ✓ 90	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Thrombosis of Femoral Vein...... 92 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Heart.............. 90 ✓	1	3	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	..	..
Valvular Disease of the Heart..... 90 ✓	81	89	122	130	6	6	3	2	..	1	..	..	..	2	3	..	6	5	5	8	8	11	16	11	14	8	8	22	13	16
Total Diseases of Circulatory System..................	194	208	308	263	13	12	14	8	..	1	5	2	1	2	3	..	23	13	8	12	15	19	22	21	21	24	26	44	35	33
Order 3.—*Respiratory.*																														
Abscess of Lungs.................. 107 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis......................... 99 ✓	403	400	130	132	10	10	278	238	68	71	27	33	12	8	2	6	387	356	5	10	..	..	..	3	1	2	..	2	8	2
Congestion of Lungs.............. 103 ✓	60	32	26	22	2	1	39	15	6	6	..	2	..	1	..	1	45	25	1	..	..	1	3	..	..	1	2	3	3	3
Emphysema and Asthma.......... 105 ✓	5	9	28	30	..	..	1	....	..	1	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	1	..
Fibroid Tumor of Mediastinum.... 50 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene of Lungs................ 104 ✓	3	3	4	2	..	..	....	2	1	..	..	..	..	..	..	..	1	2	..	..	..	..	1	..	1	..	..	1	1	..
Hemorrhage of Lungs............ 103 ✓	6	1	5	2	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	1	..	1	..	1	..

CONSOLIDATED CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 2.—*Circulatory.*																																
Rupture of Right Auricle of Heart..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Left Auricle of Heart...	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Syncope........................	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6	.02
Syncope from Depressing Effect of Russian Bath...............	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Thrombosis of Femoral Vein........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Heart..............	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	1	4	5	.02
Valvular Disease of the Heart......	10	16	22	12	23	19	25	19	13	15	7	18	14	9	12	15	5	7	1	6	..	2	..	..	1	..	..	..	203	219	422	1.47
Total Diseases of Circulatory System..................	33	30	50	27	51	39	67	38	34	33	31	34	36	27	26	40	17	23	6	8	..	6	..	..	1	..	..	..	502	471	973	3.39
Order 3.—*Respiratory.*																																
Abscess of Lungs................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Bronchitis.........................	6	8	14	4	14	8	12	9	9	7	15	13	14	18	21	28	14	22	7	17	2	13	3	6	1	3	..	1	533	532	1,065	3.70
Congestion of Lungs...............	5	3	1	4	5	2	..	2	2	2	3	3	5	1	3	1	5	2	2	..	1	..	..	1	..	..	..	..	86	54	140	.49
Emphysema and Asthma..........	3	..	3	1	3	3	1	9	4	2	3	5	2	2	7	7	4	3	..	3	1	1	..	..	..	..	..	..	33	39	72	.25
Fibroid Tumor of Mediastinum....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	....	1	1	.003
Gangrene of Lungs................	..	1	1	..	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	5	12	.04
Hemorrhage of Lungs............	2	..	2	..	..	1	1	..	1	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	11	3	14	.05

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 3.—*Respiratory.*																														
Oedema Glottidis 98 ✓	1	2	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	1	..	..	1	..	1	..	..	..	..
Pneumonia 101 ✓	810	670	525	393	27	18	356	277	167	135	45	60	28	24	19	21	615	517	35	31	9	14	19	16	39	26	51	41	59	40
Pleuritis 102 ✓	20	15	21	10	1	..	3	2	2	4	..	1	..	..	..	1	5	8	2	1	1	..	2	1	2	3	..	..	3	2
" Hydrothorax 102 ✓	6	3	7	....	..	1	....	1	..	..	..	..	..	..	..	..	....	1	1	..	..	1	2	..	..	1	1	..	..	..
" Empyema 102 ✓	2	2	6	1	..	..	....	1	..	..	..	..	..	..	..	..	....	1	2	..	..	..	..	..	..	..	1	..	..	..
Total Diseases of Respiratory System	1,385	1,191	759	595	43	30	682	549	262	225	90	107	54	41	28	39	1,116	961	56	48	11	17	27	21	45	34	56	47	76	48
Order 4.—*Digestive.*																														
Ascites 122 ✓	1	3	2	2	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Abscess of Liver 124 ✓	2	2	8	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	2	1	2	..
Atrophy of Liver 124 ✓	1	1	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	1
Abscess of Abdomen 126 ✓	1	....	....	....	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Spleen 126 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Peritoneum 126 ✓	...	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Gluteal 153 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Colic 113 ✓	6	2	2	2	..	..	6	2	..	..	..	..	..	..	..	..	6	2	..	..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver 12 ✓ ✓	19	5	76	63	..	..	2	....	..	..	..	..	..	..	..	1	2	1	..	..	1	..	..	..	..	2	4	2	4	5

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 3.—*Respiratory.*																																
Oedema Glottidis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
Pneumonia	75	40	67	30	79	43	72	38	64	38	48	46	42	49	30	40	19	30	9	14	1	5	1	4	..	..	1	1	1,335	1,063	2,398	8.35
Pleuritis	4	..	2	..	5	1	7	1	3	1	1	..	3	2	1	1	..	..	..	2	..	2	..	..	..	..	..	..	41	25	66	.23
" Hydrothorax	..	..	1	..	2	..	1	..	1	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	13	3	16	.06
" Empyema	1	..	2	..	..	1	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	8	3	11	.04
Total Diseases of Respiratory System	96	52	93	39	109	59	94	60	84	50	75	67	70	74	64	78	43	57	18	37	5	21	4	11	1	3	1	2	2,144	1,786	3,930	13.68
Order 4.—*Digestive.*																																
Ascites	..	1	..	..	1	..	..	1	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	5	8	.03
Abscess of Liver	1	..	1	..	2	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	4	14	.05
Atrophy of Liver	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
Abscess of Abdomen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Spleen	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Peritoneum	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" Gluteal	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Colic	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	8	4	12	.04
Cirrhosis of Liver	10	10	13	7	23	12	13	9	11	8	8	5	3	5	1	1	1	..	1	1	..	..	..	..	..	..	..	..	95	68	163	.57

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Congestion of Liver 124 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cysto-Sarcoma of Abdomen 49 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Constipation 119 ✓	3	1	1	....	..	..	1	....	2	..	..	..	..	..	..	..	3	....	..	..	..	..	..	..	..	..	..	..	..	..
Dyspepsia 112 ✓	12	9	2	2	..	..	9	8	1	..	2	..	..	..	..	..	12	8	..	..	..	..	..	..	..	..	..	..	..	1
Dropsy of Peritoneum 205 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Enteritis 113 ✓	78	62	13	22	1	5	48	47	13	9	4	1	2	..	..	1	67	58	3	1	2	..	1	1	2	..	2	2	1	4
Fatty Degeneration of Liver 122 ✓	5	2	11	8	1	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	1	2	1	2	..
Gangrene of Intestines 119 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Rectum 119 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Scrotum 151 ✓	1	....	1	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis 112 ✓	40	48	18	27	..	2	18	28	3	5	5	1	2	2	..	..	28	36	2	2	1	..	1	..	..	2	1	4	2	2
Gastro-Enteritis 113 ✓	76	55	6	6	1	..	60	36	5	8	1	3	1	..	..	..	67	47	..	2	2	..	2	..	2	4	2	..	2	2
Gall Stones 123 ✓	...	1	1	4	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Gastromalacia 112 ✓	....	....	1	1	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Hæmatemesis 122 ✓	3	1	2	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	1	2	1	..
Hernia Strangulated 118 ✓	8	2	11	17	..	..	7	....	..	..	..	..	..	..	..	..	7	....	1	..	..	..	..	..	..	..	2	..	2	1
Hemorrhage of Bowels 116 119 ✓	1	4	1	3	..	..	....	3	..	..	..	..	..	..	..	..	....	3	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Congestion of Liver	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Cysto-Sarcoma of Abdomen	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Constipation	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
Dyspepsia	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	14	11	25	.09
Dropsy of Peritoneum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Enteritis	2	3	2	..	..	1	2	3	2	2	2	2	1	2	..	3	2	..	..	2	..	..	..	..	..	..	..	..	91	84	175	.61
Fatty Degeneration of Liver	3	1	4	..	3	1	..	2	1	..	1	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	16	10	26	.09
Gangrene of Intestines	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1	.003
" of Rectum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Scrotum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	....	2	.01
Gastritis	..	3	3	..	4	2	2	4	1	3	4	6	2	..	3	3	2	5	..	2	2	1	..	..	..	..	..	..	58	75	133	.45
Gastro-Enteritis	..	1	..	1	..	1	2	..	2	..	..	1	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	82	61	143	.50
Gall Stones	..	..	..	..	..	..	..	1	..	1	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	5	6	.02
Gastromalacia	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Hæmatemesis	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7	.02
Hernia Strangulated	1	1	2	1	..	..	..	3	..	3	1	5	1	2	..	..	1	1	..	2	..	..	..	..	..	..	..	..	19	19	38	.13
Hemorrhage of Bowels	1	1	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	7	9	.03

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Hypertrophy of Liver 124 ✓	7	1	6	9	..	..	2	....	..	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	.	..	..	..	..	..
Hepatitis 124 ✓	15	16	25	24	2	..	2	2	..	..	1	..	1	1	..	..	4	3	..	..	1	..	2	1	1	1	1	1	2	..
Hemorrhoids 93 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of Spleen 10 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	.	..	..	..	..	..	..	..	..	..	..
Hemorrhage of Gums and Mouth 108 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Intussusception of Intestines 118 ✓	9	8	4	6	..	1	6	3	..	1	..	..	..	..	..	1	6	5	..	..	1	..	1	..	1	..	..	1	1	1
Indigestion 112 ✓	5	4	....	....	..	..	4	3	..	..	..	1	1	..	..	..	5	4	..	..	..	..	..	..	..	..	..	..	..	..
Ischio-Rectal Abscess 119 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Jaundice 124 ✓	21	7	1	2	1	..	21	7	..	..	..	..	..	..	..	..	21	7	..	..	..	..	..	..	..	1	..	..	..	..
Leucocythæmia 65 ✓	2	2	2	1	..	1	....	....	..	..	..	..	..	..	..	..	...	....	1	..	..	..	..	..	1	..	..	1	..	..
Mortification of Bowels 119 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Obstruction of Com. Ductus Choledoctus 118 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Pharyngitis 109 ✓	....	3	1	....	..	..	....	2	..	..	..	..	..	1	..	..	....	3	..	..	..	..	..	..	1	..	..	..	..	..
Pharyngeal Abscess 109 ✓	2	....	....	....	..	..	1	....	1	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis 126 ✓	33	31	27	34	1	1	7	10	1	..	..	..	..	..	..	1	8	11	2	3	8	3	7	4	8	4	3	10	6	5
Perforation of Verm. Appendix 117 ✓	4	1	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	1	1	..	2	..	1	..	1	..	..	..
Peri-Splenitis 64 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Hypertrophy of Liver ✓	2	3	4	1	1	2	2	2	1	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	13	10	23	.08
Hepatitis ✓	4	3	1	4	3	5	6	2	6	2	4	5	1	8	4	3	..	..	..	1	..	1	..	..	..	..	..	..	40	40	80	.28
Hemorrhoids	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Hypertrophy of Spleen ✓	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Hemorrhage of Gums and Mouth ✓	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Intussusception of Intestines ✓	2	1	..	..	..	..	..	2	..	..	..	1	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	13	14	27	.09
Indigestion ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4	9	.03
Ischio-Rectal Abscess ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Jaundice ✓	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	22	9	31	.11
Leucocythæmia ✓	..	1	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7	.02
Mortification of Bowels ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Obstruction of Com. Ductus Choledoctus ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Pharyngitis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	.01
Pharyngeal Abscess ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
Peritonitis ✓	..	7	3	2	2	2	6	5	2	1	2	4	3	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	60	65	125	.43
Perforation of Verm. Appendix ✓	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2	9	.03
Peri-Splenitis ✓	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Rupture of Gall Bladder.......... 12 ✓	1	1	....	....	..	..	....	....	..	..	..	..	1	..	..	..	1	....	..	1	..	..	..	..	..	..	..	..	..	..
Stomatitis.................... 108 ✓	14	13	....	1	..	1	12	9	1	2	..	2	..	..	..	..	13	13	..	..	..	..	..	..	..	..	..	..	..	..
Stricture of Intestines........... 118 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Rectum................ 118 ✓	....	1	1	2	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Œsophagus............ 110 ✓	1	....	2	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Bowels................ 118 ✓	1	2	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Rectum .... 45 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Sub-Maxillary & Sacrum 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
" of Œsophagus .... 44 ✓	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Tumor of Spleen (kind unreported).. 64 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Liver " 50 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Abdomen " 50 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	
Ulceration of Intestines (Perforation) 119 ✓	5	3	1	4	..	..	1	....	..	1	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	1	1	.
Ulcer of Stomach.................. 111 ✓	2	4	10	10	..	..	....	....	1	..	..	..	..	..	..	..	1	....	1	..	..	1	..	2	..	1	..	..	2	1
Vermiform Appendix Impacted.... 119 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
Waxy Degeneration of Intestines.. 69 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Total Diseases of Digestive System............	383	298	256	261	9	11	211	162	29	28	13	8	8	4	..	4	261	206	13	10	17	4	18	8	19	18	22	26	28	25

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES. Order 4.—*Digestive.*																																
Rupture of Gall Bladder..........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Stomatitis........................	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	14	28	.10
Stricture of Intestines.............	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Rectum...............	..	..	..	2	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	.01
" of Œsophagus...........	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	.01
" of Bowels................	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Sarcoma of Rectum...............	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Sub-Maxillary & Sacrum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Œsophagus...........	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Tumor of Spleen (kind unreported)..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Liver "	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Abdomen "	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Ulceration of Intestines (Perforation)	..	1	1	..	..	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	7	13	.05
Ulcer of Stomach.................	1	3	..	2	..	1	2	1	..	..	3	1	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	12	14	26	.09
Vermiform Appendix Impacted....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Waxy Degeneration of Intestines..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Total Diseases of Digestive System................	34	44	36	21	42	31	44	38	30	26	34	34	18	25	12	19	7	11	1	10	2	3	1	..	..	..	..	..	639	559	1,198	4.17

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 5.—*Urinary.*																														
Abscess of Supra-Renal Capsules... 131 ✓	....	1	....	....	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Kidneys.......... 131 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" of Prostate Gland... 135 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Addison's Disease.......... 129 ✓	....	....	3	....	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
Calculus.......... 132 ✓	....	....	4	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cystitis.......... 133 ✓	11	1	22	4	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	2	2	..	..
Congestion of Kidneys.......... 131 ✓	2	1	2	1	..	..	1	....	1	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	..	..	..	1	1	..
Cysto-Sarcoma of Kidneys.......... 49 ✓	1	....	....	....	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	.	..	..
Cirrhosis of Kidneys.......... 129 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Diabetes.......... 57 ✓	4	6	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	2	1	..	1
Extraversion of Bladder.......... 159 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	.	..	..	..	..	..	..
Enlargement of Prostate Gland.......... 135 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Fatty Degeneration of Kidneys.......... 129 ✓	....	1	....	4	..	.	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	..	1
Hypertrophy of Prostate.......... 135 ✓	4	....	4	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hydronephrosis.......... 131 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis.......... 128 ✓	44	24	46	34	1	1	3	2	5	3	..	..	3	1	3	2	14	8	3	3	1	1	3	..	2	4	4	6	3	2
Nephria (Bright's Disease).......... 128 ✓	135	127	293	272	21	21	2	2	2	2	2	1	1	6	3	1	10	12	8	5	4	6	5	11	13	25	28	36	44	37
Pyelitis.......... 131 ✓	....	1	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	1	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 5.—*Urinary.*																																
Abscess of Supra-Renal Capsules	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Kidneys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Prostate Gland	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Addison's Disease	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
Calculus	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	4	....	4	.01
Cystitis	1	1	1	1	1	..	2	..	5	..	2	..	4	1	5	..	3	..	3	..	2	..	1	..	..	..	..	..	33	5	38	.13
Congestion of Kidneys	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6	.02
Cysto-Sarcoma of Kidneys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Cirrhosis of Kidneys	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Diabetes	2	..	1	..	2	..	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	7	7	14	.05
Extraversion of Bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Enlargement of Prostate Gland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Fatty Degeneration of Kidneys	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	5	5	.02
Hypertrophy of Prostate	..	..	..	..	2	..	..	..	..	..	1	..	2	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	8	....	8	.03
Hydronephrosis	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Nephritis	14	5	8	9	6	3	11	7	4	1	4	..	6	3	5	2	2	3	..	..	..	..	..	1	..	..	..	..	90	58	148	.52
Nephria (Bright's Disease)	39	58	35	32	54	48	56	21	39	26	35	18	18	25	25	20	5	10	7	7	2	..	1	1	..	1	..	..	428	399	827	2.88
Pyelitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 5.—*Urinary.*																														
Prostatitis 135 ✓	1	1	5	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Rupture of Cyst of Kidneys 50 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Urethra 134 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Suppression of Urine 131 ✓	4	1	1	....	..	..	2	....	..	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	..	..	..	..	..	1
Stricture of Urethra 134 ✓	3	....	6	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Uræmia 128 ✓	6	10	20	16	..	1	....	....	..	..	1	1	..	..	..	1	1	2	2	..	..	..	..	1	..	3	..	2	2	4
Total Diseases of Urinary System	218	175	414	333	23	24	10	4	8	5	4	2	4	7	6	4	32	22	13	8	5	7	8	13	15	35	37	48	50	46
Order 6.—*Generative.*																														
Abscess of Fallopian Tube 138 ✓	....	1	....	....	..	1	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
" of Pelvic Viscera 138	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Vulva 141 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Cauliflower Tumor of Uterus 139 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Dermoid Cyst of Ovary 137 ✓	....	1	....	....	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Fibroid Uterine Tumor 139 ✓	....	15	....	8	..	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	2	..	1
Hæmatocele 141·F 131·M ✓	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	..	..
Leucorrhœa 141 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	..	..
Metritis and Metro-Peritonitis (not Puerperal) 141 ✓	....	1	....	9	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	2

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 5.—*Urinary.*																																
Prostatitis	..	..	..	..	..	..	..	..	1	1	..	..	2	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	6	1	7	.02
Rupture of Cyst of Kidneys	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Urethra	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Suppression of Urine	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	5	1	6	.02
Stricture of Urethra	1	..	2	..	1	..	..	..	1	..	2	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	9	....	9	.03
Uræmia	3	3	6	2	3	1	..	5	..	1	2	1	1	1	3	..	2	..	1	..	..	..	..	..	..	..	..	..	26	26	52	.18
Total Diseases of Urinary System	64	69	54	44	71	53	71	35	50	30	48	20	34	31	43	24	18	13	12	7	5	..	2	2	..	1	..	..	632	508	1,140	3.96
Order 6.—*Generative.*																																
Abscess of Fallopian Tube	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Pelvic Viscera	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Vulva	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Cauliflower Tumor of Uterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Dermoid Cyst of Ovary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Fibroid Uterine Tumor	..	4	..	3	..	6	..	4	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	23	23	.08
Hæmatocele	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
Leucorrhœa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Metritis and Metro-Peritonitis (not Puerperal)	..	5	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	10	10	.03

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY. United States. M.	NATIVITY. United States. F.	NATIVITY. Foreign. M.	NATIVITY. Foreign. F.	Colored M.	Colored F.	Under 1 Year. M.	Under 1 Year. F.	1— M.	1— F.	2— M.	2— F.	3— M.	3— F.	4— M.	4— F.	Total Under 5 Years. M.	Total Under 5 Years. F.	5— M.	5— F.	10— M.	10— F.	15— M.	15— F.	20— M.	20— F.	25— M.	25— F.	30— M.	30— F.
CLASS III.—LOCAL DISEASES.																														
Order 6.—*Generative.*																														
Ovarian Tumor 137 ✓	....	6	....	5	..	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	3
" Dropsy 137 ✓	....	1	....	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Ovaritis 141 ✓	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Pelvic Hæmatocele 141 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Procidentia Uteri 141 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Peri-Uterine Cellulitis 138 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Phagedenic Chancroid of Vulva 39 ✓	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	..	..	..	..	..	1
Retro-Cystic Tumor of Uterus 139 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Rupture of Ovarian Cyst 50 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Suppression of Menses 111 ✓	....	2	....	1	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	..	..	..
Tumor of Uterus (kind not reported) 139 ✓	....	....	...	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Diseases of Generative System	....	33	....	35	..	9	...	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	4	..	4	..	4	..	9
Order 7.—*Locomotory and Osseous.*																														
Arthritis 5 ✓	2	....	....	....	..	..	2	....	..	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	..	..	..	..	..	..
Abscess of Axilla 94 ✓	....	3	....	....	..	..	....	3	..	..	..	..	..	..	..	..	....	3	..	..	..	..	..	..	..	..	..	..	..	..
" Iliac 153 ✓	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh 153 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 6.—*Generative.* ✓																																
Ovarian Tumor	..	1	..	1	..	1	..	2	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	11	11	.04
" Dropsy ✓	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01
Ovaritis ✓	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
Pelvic Hæmatocele ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Procidentia Uteri ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Peri-Uterine Cellulitis ✓	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Phagedenic Chancroid of Vulva ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Retro-Cystic Tumor of Uterus ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Rupture of Ovarian Cyst ✓	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Suppression of Menses ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
Tumor of Uterus (kind not reported) ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	....	1	1	.003
Total Diseases of Generative System	..	11	..	7	..	11	..	10	..	2	..	1	..	1	..	2	..	..	..	..	..	1	..	..	..	..	..	..	....	68	68	.24
Order 7.—*Locomotory and Osseous.* ✓																																
Arthritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
Abscess of Axilla ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
" Iliac ✓	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
" of Thigh ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Abscess, Pelvic F. 158 63 ✓	1	....	....	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Caries of Bone of Arm 155 ✓	1	....	....	....	1	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cerebral Vertibræ 34 ✓	....	1	2	....	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	1	..	..	..	..
" of Femur 155 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Jaw 155 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Spine 34 ✓	6	8	....	2	..	..	1	....	..	..	..	..	..	..	..	..	1	....	3	6	1	..	1	..	..	2	..	..	..	1
" of Sacrum 34 ✓	....	....	....	1	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Pelvis 155 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Temporal Bone 155 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	1	..	..	....	1	..	..	..	..	..	..	..	..	1	..	..	..
Cellulitis of Leg 153 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Enchondroma of Ilium 50 ✓	....	....	....	✓1	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Hip Disease 35 ✓	20	7	4	2	..	..	....	....	..	..	1	..	1	..	..	..	2	....	5	5	10	2	4	..	1	1	1	..	..	1
Lympho Sarcoma of Axillary and Cervical Gland 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Kyphosis 155 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	..	..	..	..	..	..
Necrosis of Arm 155 ✓	1	....	....	....	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Femur 155 ✓	....	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Humerus 155 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Leg 155 ✓	1	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	1	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 7.—*Locomotory and Osseous.*																																
Abscess, Pelvic ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Caries of Bone of Arm ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Cerebral Vertebræ ✓	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
" of Femur ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Jaw ✓	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Spine ✓	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	10	16	.06
" of Sacrum ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Pelvis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Temporal Bone ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Cellulitis of Leg ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Enchondroma of Ilium ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Hip Disease ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	9	33	.11
Lympho Sarcoma of Axillary and Cervical Gland ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Kyphosis ✓	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Necrosis of Arm ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Femur ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Humerus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Leg ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Necrosis of Lower Jaw.......155 ✓	1	....	....	....	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Nasal Bone............155 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
" of Sacrum..............153 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Sub-Maxillary..........155 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Spine...............34 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Tibia...............155 ✓	....	....	2	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	1
" of Temporal Bone.......153 ✓	....	....	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Tarsal Bone.........153 ✓	....	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Osteitis.....................155 ✓	1	...	....	...	..	..	....	....	..	..	..	..	..	..	1	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Osteo-Sarcoma of Breast.......47 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lower Jaw.......43 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Inferior Maxilla..43 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Neck and Jaw..43 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Periostitis of Lower Jaw......155 ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	1
Pelvic Cellulitis.......F 138 53 ✓	....	3	....	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	2	..	4	..	..
Rupture of Pelvic Abscess into Peritoneum................ 153 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Synovitis of Knee...........156 ✓	2	2	1	1	..	..	....	....	..	..	..	..	2	..	..	..	2	....	1	1	..	..	..	..	..	..	..	..	..	..
Spinal Disease...............34 ✓	11	9	4	2	..	..	....	....	1	..	..	..	1	2	4	1	6	3	3	2	..	4	1	..	..	1	1	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 7.—*Locomotory and Osseous.*																																
Necrosis of Lower Jaw ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Nasal Bone ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Sacrum ✓	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" Sub-Maxillary ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Spine ✓	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Tibia ✓	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
" of Temporal Bone ✓	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
" of Tarsal Bone ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Osteitis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Osteo-Sarcoma of Breast ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Lower Jaw ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Inferior Maxilla ✓	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Neck and Jaw ✓	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Periostitis of Lower Jaw ✓	..	..	..	..	1	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Pelvic Cellulitis ✓	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	8	8	.03
Rupture of Pelvic Abscess into Peritoneum ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Synovitis of Knee ✓	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6	.02
Spinal Disease ✓	..	..	1	..	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	11	26	.09

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Synovitis of Shoulder and Wrist. 156 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Thigh 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	.	..
Ulcer of Leg 154 ✓	1	....	3	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Total Locomotory and Osseous Diseases	56	38	26	32	1	1	6	3	1	1	3	..	4	3	5	1	19	8	12	15	13	7	6	..	6	7	8	5	2	5
Order 8.—*Integumentary.* ✓																														
Abscess of Breast 142	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Cheek 153 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Chest 153 ✓	2	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Groin 94 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Head, Shoulder, Hand 153 ✓ ✓	2	....	....	....	..	..	2	....	..	..	..	..	..	..	..	..	2	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Leg 153	1	....	1	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Neck 153 ✓	6	7	3	1	..	..	....	4	1	1	4	1	..	..	..	..	5	6	1	..	..	..	..	..	..	..	..	..	..	..
" of Spine 34 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh 153 ✓ ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Boils 152 ✓ ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Eczema 152 ✓	5	3	....	....	..	..	4	3	..	..	1	..	..	..	..	..	5	3	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES																																
Order 7.—*Locomotory and Osseous.*																																
Synovitis of Shoulder and Wrist	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Sarcoma of Thigh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Ulcer of Leg	..	..	..	..	..	1	..	1	1	1	..	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	4	5	9	.03
Total Locomotory and Osseous Diseases	1	6	2	3	3	1	..	5	4	3	3	2	2	..	..	2	1	..	..	..	..	1	..	..	..	..	..	..	82	70	152	.53
Order 8.—*Integumentary.*																																
Abscess of Breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Cheek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Chest	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
" of Groin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Head, Shoulder, Hand	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.01
" of Leg	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
" of Neck	..	..	1	..	1	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	9	8	17	.06
" of Spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Thigh	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01
Boils	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	3	8	.03

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 8.—*Integumentary.*																														
Ecthyma 154 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Erythema 154 ✓	....	2	....	....	..	..	....	2	..	..	..	..	..	..	..	..	....	2	..	..	..	..	..	..	..	..	..	..	..	..
Elephantiasis 154 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene of Hand and Arm 151 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Neck 151 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh 151 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Otitis 86 ✓	9	8	3	2	..	1	2	1	1	..	1	1	..	..	..	3	4	5	3	..	1	1	1	..	2	..	..	..	1	1
Omphalitis 162 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Otorrhœa 81 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
Pemphigus 154 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Psoriasis 152 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of Face 154 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	1	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Foot 154 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Frontal Sinus 97 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Integumentary Diseases	32	26	12	5	..	1	16	15	2	1	6	2	..	1	..	3	24	22	4	..	1	1	1	..	3	..	1	..	1	1
Total Local Class	3,233	2,787	2,142	1,825	109	109	1,432	1,139	446	413	161	163	101	81	63	68	2,203	1,864	143	125	76	66	92	73	131	134	175	194	215	194
	6,020		3,967		218		2,571		859		324		182		131		4,067		268		142		165		265		369		409	

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES. Order 8.—*Integumentary.*																																
Ecthyma ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Erythema ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
Elephantiasis ✓	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Gangrene of Hand and Arm ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Neck ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Thigh ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Otitis ✓	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	12	10	22	.08
Omphalitis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Otorrhœa ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Pemphigus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Psoriasis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Ulcer of Face ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Foot ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Frontal Sinus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Integumentary Diseases	..	2	1	..	1	1	1	1	..	..	1	1	2	..	..	1	2	1	1	..	..	..	..	..	..	..	..	..	44	31	75	.26
Total Local Class	271	237	286	174	334	227	343	221	257	187	239	193	214	202	191	221	117	148	57	81	18	46	8	16	3	7	2	2	5,375	4,612	9,987	34.77
	508		460		561		564		444		432		416		412		265		138		64		24		10		4		9,987		....	....

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS IV.—DEVELOPMENTAL DISEASES.																														
Order 1.—*Children.*																														
Atelectasis Pulmonum 162 ✓	72	48	....	....	..	2	72 ✓	47	..	1	..	..	..	..	..	..	72	48	..	..	..	..	..	..	..	..	..	..	..	..
Cyanosis 162 [illegible] 705 ✓	44	41	....	....	1	2	42	41	1	..	..	..	..	..	1	..	44	41	..	..	..	..	..	..	..	..	..	..	..	..
Cleft Palate 159 ✓	3	4	....	....	..	..	3	4	..	..	..	..	..	..	..	..	3	4	..	..	..	..	..	..	..	..	..	..	..	..
Hemorrhage of Umbilicus 162 ✓	11	4	1	....	1	..	12 ✓	4	..	..	..	..	..	..	..	..	12	4	..	..	..	..	..	..	..	..	..	..	..	..
Imperforate Anus 159 ✓	4	1	....	....	..	..	4	1	..	..	..	..	..	..	..	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..
Other Malformations 159 ✓	6	16	....	....	..	..	6	16	..	..	..	..	..	..	..	..	6	16	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth 161 ✓	295	241	....	....	3	4	295	241	..	..	..	..	..	..	..	..	295	241	..	..	..	..	..	..	..	..	..	..	..	..
Preternatural Birth 159 ✓	40	33	....	....	..	..	40	33	..	..	..	..	..	..	..	..	40	33	..	..	..	..	..	..	..	..	..	..	..	..
Spina Bifida 159 ✓	9	8	....	....	..	..	8	8	1	..	..	..	..	..	..	..	9	8	..	..	..	..	..	..	..	..	..	..	..	..
Total Developmental Diseases of Children	484	396	1	....	5	8	482	395	2	1	..	..	..	..	1	..	485	396	..	..	..	..	..	..	..	..	..	..	..	..
Order 2.—*Women.*																														
Albuminuria Uræmia and Pregnancy ✓ 145	....	1	....	9	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	2	..	2
Amenorrhœa 141 ✓	....	2	....	1	..	..	....	....	..	..	..	..	..	..	..		....	....	..	..	..	..	..	1	..	..	..	1	..	..
Childbirth 145 ✓	....	5	....	22	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	2	..	2	..	5	..	5
Flooding 144 ✓	.... ✓	7	....	✓ 22	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	5	..	6	..	12
Fallopian and Extra Uterine Pregnancy 143 ✓	....	1	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	1

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS IV.—DEVELOPMENTAL DISEASES.																																
Order 1.—*Children.*																																
Atelectasis Pulmonum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	72	48	120	.42
Cyanosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44	41	85	.29
Cleft Palate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	7	.02
Hemorrhage of Umbilicus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	4	16	.06
Imperforate Anus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
Other Malformations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	16	22	.08
Premature Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	295	241	536	1.87
Preternatural Birth	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	33	73	.25
Spina Bifida	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	8	17	.06
Total Developmental Diseases of Children	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	485	396	881	3.07
Order 2.—*Women.*																																
Albuminuria Uræmia and Pregnancy	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	10	10	.03
Amenorrhœa	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	3	.3	.01
Childbirth	..	10	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	27	27	.09
Flooding	..	3	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	29	29	.10
Fallopian and Extra Uterine Pregnancy	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS IV.—DEVELOPMENTAL DISEASES.																														
Order 2.—*Women.*																														
Hysterical Asthenia 82 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Miscarriage and Abortion 143 ✓	....	4	....	14	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	7	..	1
Menorrhagia 140 ✓	....	....	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Metrorrhagia 140 ✓	....	1	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Puerperal Metritis (Metro-Peritonitis) 146 ✓	....	44	....	101	..	5	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	10	..	41	..	34	..	30
Puerperal Convulsions 148 ✓	....	26	....	24	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	5	..	17	..	11	..	6
" Mania 149 ✓	....	3	....	2	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	1	..	1
Phlegmasia Dolens 147 ✓	....	....	....	7	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	..	3
Placenta Prævia 144 ✓	....	2	....	8	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	3	..	2
Pregnancy 145 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Rupture of Uterus 145 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Developmental Diseases of Women	....	97	....	218	..	8	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	21	..	70	..	73	..	64
Order 3.—*Age.* ✓																														
Senile Debility 164 ✓	22	45	85	199	2	2	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Gangrene 151 ✓	1	3	3	6	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Diseases of Old Age	23	48	88	205	2	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class IV.—DEVELOPMENTAL DISEASES.																																
Order 2.—*Women.*																																
Hysterical Asthenia	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Miscarriage and Abortion	..	6	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	18	18	.06
Menorrhagia	..	..	..	.	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
Metrorrhagia	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
Puerperal Metritis (Metro-Peritonitis	..	18	..	11	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	145	145	.50
Puerperal Convulsions	..	8	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	50	50	.17
" Mania	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	5	5	.02
Phlegmasia Dolens	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	7	7	.02
Placenta Prævia	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	10	10	.03
Pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Rupture of Uterus	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	....	1	1	.003
Total Developmental Diseases of Women	..	62	..	21	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	315	315	1.09
Order 3.—*Age.*																																
Senile Debility	..	..	..	..	..	..	..	2	2	4	5	11	15	13	20	45	18	54	21	52	16	34	6	19	3	8	1	2	107	244	351	1.22
" Gangrene	..	..	..	..	..	..	..	..	..	..	..	1	1	3	1	2	2	1	..	..	..	1	..	1	..	..	..	..	4	9	13	.05
Total Diseases of Old Age	..	..	..	..	..	..	..	2	2	4	5	12	16	16	21	47	20	55	21	52	16	35	6	20	3	8	1	2	111	253	364	1.27

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class IV.—DEVELOPMENTAL DISEASES.																														
Order 4.—*Nutrition.*																														
Atrophy ✓	19	5	....	....	..	..	17	5	..	..	1	..	..	..	..	..	18	5	..	..	..	..	..	..	..	..	..	..	..	..
Asthenia (Debility) ✓	42	32	4	5	2	..	40	30	1	..	1	2	..	..	..	..	42	32	1	..	..	..	..	..	..	..	..	1	..	..
Total Diseases of Nutrition	61	37	4	5	2	..	57	35	1	..	2	2	..	..	..	..	60	37	1	..	..	..	..	..	..	..	..	1	..	..
Total Developmental Class	568	578	93	428	9	19	539	430	3	1	2	2	..	..	1	..	545	433	1	..	..	..	..	21	..	70	..	74	..	64
	1,146		**521**		**28**		**969**		**4**		**4**		....		**1**		**978**		**1**		..		**21**		**70**		**74**		**64**	
Class V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Burns and Scalds	42	39	9	18	..	..	5	2	13	6	12	4	3	6	5	5	38	23	5	7	1	2	..	2	1	6	..	3	1	1
Drowning	52	5	104	13	..	..	1	1	..	2	..	..	..	..	..	..	1	3	11	..	15	..	8	..	19	1	18	1	8	3
Fractures and Contusions	33	6	66	11	1	1	....	....	..	..	..	1	1	..	2	1	3	2	4	1	7	1	4	..	5	..	9	3	16	1
Falls	82	21	134	42	..	..	1	1	8	3	7	6	4	5	3	2	23	17	13	1	8	..	14	..	11	1	20	2	21	8
Killed by Vehicles in the Streets	38	6	30	7	1	..	....	....	..	..	3	2	3	1	4	1	10	4	10	1	11	2	4	..	1	..	5	..	6	..
Neglect and Exposure	11	14	1	....	..	..	11	14	..	..	..	..	..	..	..	..	11	14	..	..	..	..	..	..	..	..	..	..	..	..
Poison by Cyanide of Potassium	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" by Colchicum	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Carbolic Acid	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class IV.—DEVELOPMENTAL DISEASES.																																
Order 4.—*Nutrition.*																																
Atrophy	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	5	24	.08
Asthenia (Debility)	..	..	..	1	..	1	..	2	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	46	37	83	.29
Total Diseases of Nutrition	..	..	1	1	..	1	..	2	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	65	42	107	.37
Total Developmental Class	..	62	1	22	..	5	..	4	4	4	5	12	16	16	22	47	20	55	21	52	16	35	6	20	3	8	1	2	661	1,006	1,667	5.80
	62		23		5		4		8		17		32		69		75		73		51		26		11		3		1,667		....	....
Class V.—DEATH BY VIOLENCE.																																
Order 1.—*Accident and Negligence.*																																
Burns and Scalds	1	4	2	1	2	1	..	2	..	2	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	51	57	108	.38
Drowning	27	4	18	3	9	1	5	..	5	..	8	1	2	..	1	..	..	1	1	.	..	..	..	.	..	..	..	..	156	18	174	.61
Fractures and Contusions	12	1	12	..	11	3	5	1	2	..	4	2	3	1	1	1	..	..	..	..	..	..	1	..	..	..	..	..	99	17	116	.40
Falls	24	5	15	6	22	2	16	6	14	2	5	3	4	4	2	2	3	2	1	2	..	..	..	..	..	..	..	..	216	63	279	.97
Killed by Vehicles in the Streets	8	..	2	1	1	..	2	1	5	1	1	..	1	..	..	2	1	1	..	..	..	..	..	..	..	..	..	..	68	13	81	.28
Neglect and Exposure	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	14	26	.09
Poison by Cyanide of Potassium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Colchicum	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Carbolic Acid	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Poison by Chloroform	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	.	..	..	..	..	..	..	..
" by Dover's Powders	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" by Eating cake covered with Paris Green	1	....	....	....	..	..	....	....	..	..	..	..	1	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Fusil Oil	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Kerosene Oil	1	....	....	....	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Laudanum	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" by Phosphorus	....	2	....	....	..	..	....	....	..	1	..	1	..	..	..	..	....	2	..	..	..	..	..	..	..	..	..	..	..	..
" by Morphine	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" by Medicines (Abortion)	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" by Oxalic Acid	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Pickles	....	....	1	2	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	1	..	..
" by Paris Green	1	1	....	....	..	..	....	....	..	..	..	1	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" by Potassa	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	.	..	..	..	..	..	..	..	..	..
" by Sulphate of Morphine	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Tincture of Opium	2	....	1	....	1	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation (Asphyxia by)	16	17	3	2	1	1	12	15	2	2	1	..	..	..	..	..	15	17	1	..	..	..	..	..	1	..	..	..	1	..
Surgical Operations (Direct)	46	35	28	33	1	..	9	2	5	1	2	1	2	2	1	1	19	7	5	3	3	..	..	..	3	3	7	4	5	8

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—DEATH BY VIOLENCE.																																
Order I.—*Accident and Negligence.*																																
Poison by Chloroform	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	I	I	.003
" by Dover's Powders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	I	I	.003
" by Eating cake covered with Paris Green	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Fusil Oil	..	..	..	..	..	..	I	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Kerosene Oil	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Laudanum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Phosphorus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
" by Morphine	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.01
" by Medicines (Abortion)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	I	I	.003
" by Oxalic Acid	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	I	I	.003
" by Pickles	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	2	3	.01
" by Paris Green	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	I	2	.01
" by Potassa	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Sulphate of Morphine	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	....	I	.003
" by Tincture of Opium	..	..	..	..	I	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
Suffocation (Asphyxia by)	I	I	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	19	38	.13
Surgical Operations (Direct)	7	7	6	14	4	4	2	6	3	2	2	3	I	..	5	7	2	..	..	..	..	..	..	..	..	..	..	..	74	68	142	.49

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Wounds	2	....	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	2	..	..	..	..	..	..	..	..	..
" of Face	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Gunshot	7	....	3	1	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	2	..	2	..	1	..	1	1	1	..
" Incised	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
" by Pen-handle (Abortion)	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Deaths by Accident and Negligence	338	149	388	133	6	2	40	36	29	15	26	16	14	14	16	11	125	92	49	13	50	5	32	2	42	11	61	15	61	23
Order 2.—*Homicide.*																														
By Abortion	....	2	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	2	..	1
By Blows	8	1	12	6	..	..	1	....	..	..	..	..	..	..	..	..	1	....	1	..	2	1	1	..	1	..	5	1	3	1
By Burns (Kerosene-oil lamp thrown at her)	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
By Burns	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..
By Cut, Stab	3	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	3	..
By Drowning	2	...	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	1	..
By Gunshot	6	1	7	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	2	..	..	1	2	..	4	..
By Kick	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class V.—DEATH BY VIOLENCE.																																
Order 1.—*Accident and Negligence.*																																
Wounds	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	....	5	.02
" of Face	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" Gunshot	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	1	11	.04
" Incised	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Pen-handle (Abortion)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Total Deaths by Accident and Negligence	82	22	59	25	52	13	33	17	29	8	21	10	12	7	9	12	6	4	2	3	..	..	1	..	..	..	..	..	726	282	1,008	3.51
Order 2.—*Homicide.*																																
By Abortion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
By Blows	1	1	1	..	2	1	1	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	7	27	.09
By Burns (Kerosene-oil lamp thrown at her.	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
By Burns	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
By Cut, Stab	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	....	5	.02
By Drowning	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	....	4	.02
By Gunshot	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	1	14	.05
By Kick	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.01

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—DEATH BY VIOLENCE.																														
Order 2.—*Homicide.*																														
By Suffocation	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
By being Thrown into the Street	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Homicidal Deaths	21	5	24	9	1	..	2	....	..	..	..	..	..	..	..	1	2	1	2	..	2	1	3	..	1	1	9	3	11	2
Order 3.—*Suicide.*																														
By Cutting	3	2	15	....	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	1	..	..	..
By Drowning	1	....	9	3	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	1
By Gunshot	10	....	24	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	2	..	2	..	4	..	4	..
By Hanging	1	2	23	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	1	..	2	1	4	1	2	1
By Inhaling Carbonic Acid Gas from Charcoal	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
By Leap	3	2	2	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	2	..	..	..	..
By Poison	11	5	37	18	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	1	5	6	4	8	2
By Voluntary bruising of head against bars of Cell	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Suicidal Deaths	30	11	110	29	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	3	1	8	8	15	5	14	4
Sudden Deaths and Causes unascertained	....	1	....	...	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Total Violent Deaths Class	389	166	522	171	8	2	42	37	29	15	26	16	14	14	16	12	127	94	51	13	53	6	38	3	51	20	85	23	86	29
	555		**693**		**10**		**79**		**44**		**42**		**28**		**28**		**221**		**64**		**59**		**41**		**71**		**108**		**115**	

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class V.—DEATH BY VIOLENCE.																																
Order 2.—*Homicide.*																																
By Suffocation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
By being Thrown into the Street	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Homicidal Deaths	5	2	2	1	3	1	2	1	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	14	59	.20
Order 3.—*Suicide.*																																
By Cutting	5	..	3	..	1	1	2	1	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	2	20	.07
By Drowning	2	..	2	..	2	..	2	..	..	1	..	1	...	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	10	3	13	.05
By Gunshot	6	1	5	..	4	..	3	1	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	34	2	36	.13
By Hanging	4	1	1	..	..	..	4	2	1	..	3	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	7	31	.11
By Inhaling Carbonic Acid Gas from Charcoal	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
By Leap	..	..	2	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7	.02
By Poison	10	4	7	1	10	2	4	2	2	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	48	23	71	.25
By Voluntary bruising of head against bars of Cell	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Suicidal Deaths	28	6	20	2	18	3	15	6	6	1	8	2	2	2	1	..	..	..	1	..	..	..	..	..	..	..	..	..	140	40	180	.63
Sudden Deaths and Causes unascertained	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Total Violent Deaths Class	115	30	81	28	73	17	50	24	36	9	30	12	15	10	10	12	6	4	3	3	..	..	1	..	..	..	..	..	911	337	1,248	4.34
	145		**109**		**90**		**74**		**45**		**42**		**25**		**22**		**10**		**6**		...		**1**		....		....		**1,248**		....	....

RECAPITULATION.

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

Causes of Death.	Nativity.				Colored.		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Classes:																														
Zymotic	4,408	4,186	626	582	64	68	1,956	1,847	818	755	438	398	345	281	226	220	3,783	3,501	410	497	75	85	60	66	90	93	100	100	100	75
Constitutional	1,494	1,442	1,585	1,502	61	58	476	381	183	155	65	48	30	29	20	19	774	632	40	68	31	43	117	117	243	248	304	309	312	293
Local	3,233	2,787	2,142	1,825	109	109	1,432	1,139	446	413	161	163	101	81	63	68	2,203	1,864	143	125	76	66	92	73	131	134	175	194	215	194
Developmental	568	578	93	428	9	19	539	430	3	1	2	2	..	..	1	..	545	433	1	..	..	..	..	21	..	70	..	74	..	64
Violence	389	166	522	171	8	2	42	37	29	15	26	16	14	14	16	12	127	94	51	13	53	6	38	3	51	20	85	23	86	29
Total Deaths from all Causes	10,092	9,159	4,968	4,508	251	256	4,445	3,834	1,479	1,339	692	627	490	405	326	319	7,432	6,524	645	703	235	200	307	280	515	565	664	700	718	655
Total of both Sexes.	19,251		9,476		507		8,279		2,818		1,319		895		645		13,956		1,348		435		587		1,080		1,364		1,368	
Percentage on Total Mortality of each Sex in each period of life	35.13	31.88	17.29	15.69	.87	.89	15.47	13.35	5.15	4.66	2.41	2.18	1.70	1.41	1.13	1.11	25.87	22.71	2.24	2.45	.82	.69	1.07	.97	1.79	1.96	2.31	2.44	2.48	2.28
Percentage on Total Mortality of both Sexes in each period of life	67.01		32.98		1.76		28.82		9.81		4.59		3.11		2.24		48.58		4.69		1.51		2.04		3.75		4.75		4.76	

RECAPITULATION—(*Continued*).

CAUSES OF DEATHS IN NEW YORK CITY FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Classes :																																
ZYMOTIC........	89	73	58	38	66	33	69	36	27	22	36	34	21	20	27	35	14	26	5	25	2	5	1	2	1	..	..	2	5,034	4,768	9,802	34.12
CONSTITUTIONAL.	266	278	237	215	203	185	187	153	108	114	105	111	74	61	39	59	31	35	4	14	2	5	2	2	..	2	..	..	3,079	2,944	6,023	20.97
LOCAL......	271	237	286	174	334	227	343	221	257	187	239	193	214	202	191	221	117	148	57	81	18	46	8	16	3	7	2	2	5,375	4,612	9,987	34.77
DEVELOPMENTAL.	..	62	1	22	..	5	..	4	4	4	5	12	16	16	22	47	20	55	21	52	16	35	6	20	3	8	1	2	661	1,006	1,667	5.80
VIOLENCE.......	115	30	81	28	73	17	50	24	36	9	30	12	15	10	10	12	6	4	3	3	..	..	1	..	..	..	..	..	911	337	1,248	4.34
Total Deaths from all Causes......	741	680	663	477	676	467	649	438	432	336	415	362	340	309	289	374	188	268	90	175	38	91	18	40	7	17	3	6	15,060	13,667	28,727	100.00
Total of both Sexes.	1,421		1,140		1,143		1,087		768		777		649		663		456		265		129		58		24		9		28,727		....	....
Percentage on Total Mortality of each Sex in each period of life...........	2.58	2.38	2.31	1.66	2.35	1.62	2.26	1.52	1.50	1.17	1.44	1.26	1.18	1.09	1.00	1.30	.65	.93	.31	.61	.13	.32	.06	.14	.02	.06	.01	.02	52.42	47.58	....	....
Percentage on Total Mortality of both Sexes in each period of life........	4.96		3.97		3.97		3.78		2.67		2.70		2.27		2.30		1.58		.92		.45		.20		.08		.03		100.00		....	....

CONSOLIDATED ABSTRACT OF DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES,

During the Twelve Months ending December 31, 1875.

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class I.—ZYMOTIC DISEASES.																														
Order 1.—*Miasmatic.*																														
Small-pox and Varioloid ✓	501	402	208	169	16	4	114	110	86	70	50	56	34	28	26	24	310	288	55	60	16	10	33	21	77	49	64	44	51	24
Varicella ✓	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Measles ✓	76	91	....	....	..	..	12	22	31	35	13	16	8	3	4	7	68	83	7	8	1	..	..	..	..	..	..	..	..	..
Scarlatina ✓	248	237	14	15	..	..	30	19	52	39	47	59	38	35	30	23	197	175	49	58	6	6	3	3	5	6	2	3	..	..
Diphtheria ✓	1,104	1,142	36	47	5	10	103	81	230	214	212	191	187	191	136	145	868	822	242	308	13	36	5	4	1	6	2	4	3	2
Croup ✓	363	374	13	8	1	1	42	25	109	116	80	94	70	70	30	32	331	337	41	42	1	2	..	..	2	..	..	..	..	..
Quinsy (Tonsillitis, Angina Maligna, etc.) ✓	6	9	....	2	..	..	1	3	1	1	1	1	1	1	1	1	5	7	..	3	..	..	..	..	..	..	1	..	..	..
Parotitis ✓	2	1	....	....	..	..	....	....	2	..	..	..	..	..	..	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough ✓	182	220	3	2	2	2	114	123	50	55	11	20	5	14	3	6	183	218	2	4	..	..	..	..	..	..	..	..	..	..
Erysipelas ✓	66	58	30	16	1	2	45	45	5	4	..	..	1	1	1	..	52	50	3	2	3	..	2	2	3	1	1	2	1	..
Pyæmia ✓	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Carbuncle ✓	....	....	3	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Dysentery ✓	49	40	29	32	2	1	16	10	13	10	3	3	1	..	2	5	35	28	6	..	..	2	..	1	..	2	2	4	4	6
Diarrhœa ✓	1,546	1,554	88	86	13	12	1,235	1,188	268	284	30	27	5	13	2	10	1,540	1,522	5	6	1	1	..	2	..	3	..	8	5	6
Cholera (Morbus) ✓ 3,738	12	15	27	30	..	..	....	....	..	..	1	..	..	..	1	1	2	1	2	2	1	1	1	1	3	..	1	1	3	4
Entero-Colitis ✓	121	103	4	2	..	..	96	82	22	19	3	2	..	..	..	..	121	103	1	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ✓	....	19	....	40	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	4	..	15	..	20	..	13

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class I.—ZYMOTIC DISEASES.																																
Order 1.—*Miasmatic.*																																
Small-pox and Varioloid	38	16	28	24	15	14	10	6	3	7	6	3	1	2	2	3	..	..	..	..	..	..	..	..	..	..	..	..	709	571	1,280	4.17
Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	76	91	167	.54
Scarlatina	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	262	252	514	1.67
Diphtheria	..	1	3	2	1	..	2	..	..	..	..	..	..	1	..	..	..	2	..	..	..	1	..	..	..	..	..	..	1,140	1,189	2,329	7.58
Croup	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	376	382	758	2.47
Quinsy (Tonsillitis, Angina Maligna, etc.)	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	11	17	.05
Parotitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	185	222	407	1.32
Erysipelas	1	2	6	3	2	1	2	..	6	3	5	3	2	2	4	..	1	..	..	1	2	2	..	..	..	..	..	..	96	74	170	.55
Pyæmia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Carbuncle	1	..	..	..	1	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6	.02
Dysentery	2	..	2	5	2	2	4	3	5	5	5	3	2	2	3	6	5	2	..	1	1	..	..	..	..	..	..	..	78	72	150	.49
Diarrhœa } 3,738	6	4	8	12	3	7	2	9	9	3	10	8	11	10	10	7	15	11	5	12	2	4	1	3	1	1	..	1	1,634	1,640	3,274	10.66
Cholera (Morbus)	2	..	2	6	5	7	1	3	2	4	6	2	1	3	5	3	1	5	..	1	1	1	..	..	..	..	..	..	39	45	84	.27
Entero-Colitis	..	..	..	1	..	..	..	..	..	..	2	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	125	105	230	.75
Puerperal Fever	..	6	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	59	59	....

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class I.—ZYMOTIC DISEASES.																														
Order 1.—*Miasmatic.*																														
Cerebro-Spinal Fever..............	67	53	13	13	..	1	17	13	11	12	9	6	10	1	5	1	52	33	8	14	6	3	3	2	4	1	1	4	4	1
Typhus Fever....................	5	8	7	8	..	..	....	....	..	..	1	1	1	..	..	1	2	2	1	..	..	1	..	2	2	4	3	1	1	..
Typhoid Fever....................	81	79	108	79	1	3	1	....	5	1	1	1	1	1	1	2	9	5	12	15	13	21	21	21	20	22	21	14	22	15
Continued Fever..................	2	1	2	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	1	.	..	..	..	..	..	1	..	..	..
Typho-Malarial Fever.............	9	6	1	13	..	1	....	....	..	..	..	..	..	1	2	..	2	1	2	1	..	1	1	1	..	3	..	3	1	2
Remittent Fever..................	46	41	22	24	..	1	9	5	7	10	7	4	5	3	1	1	29	23	3	8	3	2	4	2	4	6	3	..	5	2
Intermittent Fever...............	29	33	10	28	1	..	8	8	7	7	2	2	2	2	3	4	22	23	5	4	1	3	..	..	1	3	2	2	1	3
Congestive Fever.................	2	2	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	1
Total Miasmatic Diseases......	4,518	4,488	621	620	42	38	1,844	1,734	899	877	471	483	369	364	248	264	3,831	3,722	445	536	66	89	73	66	122	121	104	111	102	79
Order 2.—*Enthetic or Inoculated.*																														
Syphilis..........................	46	56	15	9	2	4	33	39	4	10	1	1	1	1	..	..	39	51	..	1	1	..	..	..	2	1	1	2	3	2
Malignant Pustule................	2	2	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	1	..	..	..	..	1	..	..	1	..	..	..
Total Enthetic or Inoculated Diseases................	48	58	15	9	2	4	33	39	4	11	1	1	1	1	..	..	39	52	1	1	1	..	..	1	2	1	2	2	3	2

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class I.—ZYMOTIC DISEASES.																																
Order 1.—*Miasmatic.*																																
Cerebro-Spinal Fever ✓	1	3	..	2	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	80	66	146	.47
Typhus Fever ✓	..	..	1	1	..	2	..	1	..	1	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	16	28	.09
Typhoid Fever ✓	14	11	15	9	14	7	13	2	5	5	2	3	3	3	4	1	..	3	..	..	1	1	..	..	..	..	..	..	189	158	347	1.13
Continued Fever ✓	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7	.02
Typho-Malarial Fever ✓	2	1	..	..	..	1	2	2	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	10	19	29	.09
Remittent Fever ✓	1	6	1	3	3	1	5	1	..	4	2	..	3	2	2	3	..	2	..	..	..	..	..	..	..	..	..	..	68	65	133	.43
Intermittent Fever ✓	1	3	1	2	..	3	..	2	..	..	3	1	1	4	..	3	..	3	..	2	..	..	1	..	..	..	..	..	39	61	100	.32
Congestive Fever ✓	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	3	6	.02
Total Miasmatic Diseases	71	55	68	72	47	48	42	29	30	34	44	25	27	32	30	29	22	28	5	17	7	10	2	3	1	1	..	1	5,139	5,108	10,247	33.18
Order 2.—*Enthetic or Inoculated.*																																
Syphilis ✓	6	1	4	1	2	..	..	1	1	3	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	61	65	126	.41
Malignant Pustule ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
Total Enthetic or Inoculated Diseases	6	1	4	1	2	..	..	1	1	3	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	63	67	130	.42

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class I.—ZYMOTIC DISEASES.																														
Order 3.—*Dietic.* √																														
Inanition (Privation, etc.) √	181	166	4	5	1	1	177	159	3	5	..	..	..	1	..	..	180	165	..	..	..	..	..	..	..	..	..	..	..	..
Scurvy √	....	2	1	1	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	2
Purpura √	9	8	4	5	..	..	5	2	1	1	..	..	..	..	1	..	7	3	..	1	1	..	..	1	..	2	..	1	2	1
Alcoholism *a.* Intemperance √	14	13	47	30	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	3	4	5	6	8	4
Alcoholism *b.* Delirium Tremens √	17	3	34	10	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	1	3	4	2	11	2
Total Dietic Diseases	221	192	90	51	1	2	182	161	4	7	..	..	..	1	1	..	187	169	..	1	1	..	..	2	4	9	9	9	21	9
Order 4.—*Parasitic.* √																														
Aphthæ	21	11	....	....	1	..	21	11	..	..	..	..	..	..	..	..	21	11	..	..	..	..	..	..	..	..	..	..	..	..
Hydatid of Uterus √	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Liver √	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Trachina	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Worms √	1	1	....	....	..	..	....	....	..	..	..	1	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Total Parasitic Diseases	22	13	....	2	1	..	21	11	..	..	..	1	..	..	1	..	22	12	..	..	..	..	..	..	..	..	..	..	..	1
Total Zymotic Diseases	4,809	4,751	726	682	46	44	2,080	1,945	907	895	472	485	370	366	250	264	4,079	3,955	446	538	68	89	73	69	128	131	115	122	126	91
	9,541		**1,368**		**90**		**4,025**		**1,802**		**957**		**736**		**514**		**8,034**		**984**		**157**		**138**		**244**		**217**		**204**	

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS I.—ZYMOTIC DISEASES.																																
Order 3.—*Dietic.*																																
Inanition (Privation, etc.) ....√	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	2	..	..	..	1	3	..	1	1	..	..	..	185	171	356	1.16
Scurvy..........................√..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	.01
Purpura.........................√..	1	..	..	1	..	..	1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	13	26	.08
Alcoholism a. Intemperance........√	4	3	16	10	8	7	8	2	5	2	2	2	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	..	61	43	104	.33
Alcoholism b. Delirium Tremens..√	11	3	5	2	11	1	5	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	51	13	64	.21
Total Dietic Diseases..........	17	6	21	13	19	8	14	3	7	4	4	2	..	4	2	..	2	..	1	..	1	3	..	1	1	..	..	..	311	243	554	1.80
Order 4.—*Parasitic.* √																																
Aphthæ..........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21	11	32	.10
Hydatid of Uterus..............√..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Liver..................√	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Trachina........................	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Worms.........................√..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Total Parasitic Diseases........	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	15	37	.12
Total Zymotic Diseases	94	62	93	87	68	57	56	33	38	41	49	27	27	36	33	30	24	29	6	17	8	13	2	4	2	1	..	1	5,535	5,433	10,968	35.52
	150		**179**		**125**		**89**		**79**		**76**		**63**		**63**		**53**		**23**		**21**		**6**		**3**		**1**		**10,909**		....	....

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5. Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Anæmia ✓	17	12	6	2	...	..	12	10	..	..	1	..	..	..	..	..	13	10	..	..	..	..	..	..	..	..	..	..	1	1
Dropsy ✓	1	1	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..
Gout ✓	5	....	2	...	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Lupus Exedens 36 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Noma (Cancrum Oris) 151 ✓	2	1	....	....	..	..	....	....	2	..	..	..	..	..	..	..	2	...	..	..	..	..	..	..	..	1	..	..	..	..
Rheumatism ✓	32	43	47	49	2	6	1	1	..	..	..	..	2	2	1	2	4	5	8	5	5	7	4	8	4	10	5	5	3	5
Sarcocele 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Vagina 46 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Cancer of Antrum 49 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	..	..	..	..	..	..
" of Axilla ✓	....	....	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Bladder ✓	....	....	2	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Breast ✓	....	24	1	31	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Body ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cæcum ✓	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of (diffused Scirrhus) 49 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Duodenum ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Epitheloma of Cervix Uteri 46 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Anæmia	2	..	2	1	1	1	..	1	1	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	23	14	37	.12
Dropsy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	2	2	4	.01
Gout	..	..	1	..	..	..	1	..	3	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	....	7	.02
Lupus Exedens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Noma (Cancrum Oris)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Rheumatism	5	5	7	6	10	4	7	3	2	6	4	4	1	6	4	7	2	4	2	1	2	1	..	..	..	..	..	..	79	92	171	.56
Sarcocele	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Sarcoma of Vagina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Cancer of Antrum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Axilla	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
" of Bladder	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
" of Breast	..	7	..	5	..	16	..	2	..	3	1	10	..	5	..	1	..	4	..	..	..	1	..	..	..	..	..	..	1	55	56	.18
" of Body	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Cæcum	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
" of (diffused Scirrhus)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Duodenum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" Epithcloma of Cervix Uteri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Cancer of Eyelid ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	.	..
" Encephaloid of Prostate Gland 49 ✓	1	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Fauces and Tongue 43	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Face ✓	1	1	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	1	..	..	..
" " Neck, Head ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Hip-Joint ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Hip ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Intestines ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Jaw ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Jejunum and Mesentery 45 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Liver ✓	3	4	19	22	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
" of Lungs ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Leg ✓	....	1	2	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Lip ✓	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Left Iliac region of Leg ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lip and Mouth ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Mediastinum 46 ✓	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																																
Order I.—*Diathetic.*																																
Cancer of Eyelid	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" Encephaloid of Prostate Gland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Fauces and Tongue	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Face	..	..	..	..	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6	.02
" " Neck, Head	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Hip-Joint	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Hip	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Intestines	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Jaw	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Jejunum and Mesentery	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Liver	1	3	3	4	4	3	3	7	4	..	5	4	1	2	..	1	1	1	..	..	..	..	..	..	..	..	..	..	22	26	48	.16
" of Lungs	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Leg	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
" of Lip	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Left Iliac region of Leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Lip and Mouth	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Mediastinum	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.* ✓																														
Cancer of Mouth ✓	....	....	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Mesenteric Glands ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Melanotic ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" of Mesentery ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" (not stated) ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Neck ✓	1	....	4	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Nose and Face ✓	....	...	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Œsophagus ✓	....	1	8	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Omentum ✓	....	....	1	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ovaries ✓	....	1	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" of Osteoid ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Orbit and Antrum ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Pelvic Cavity ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Pelvis ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Peritoneum ✓	1	...	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	1	..	..
" of Pyloris ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Pancreas ✓	1	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	1	1	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Cancer of Mouth	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
" of Mesenteric Glands	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" Melanotic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Mesentery	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" (not stated)	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Neck	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	5	....	5	.02
" of Nose and Face	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Œsophagus	..	..	..	..	..	1	2	..	2	..	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	8	1	9	.03
" of Omentum	..	..	..	..	..	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	6	.02
" of Ovaries	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
" of Osteoid	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Orbid and Antrum	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Pelvic Cavity	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Pelvis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Peritoneum	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
" of Pyloris	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Pancreas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																														
Order 1.—*Diathetic.*																														
Cancer of Rectum	5	3	5	4	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	2	..
" of Stomach	7	12	41	33	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	1	..	1	..
" of Spleen 49	2	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Spine 49	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
" of Tongue	2	....	4	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Tongue and Fauces	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	.	..	..	..	..	..	..	..
" of Throat	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Uterus 49	...	36	....	63	..	2	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	2	..	2	..	8
" of Vagina 49	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Fungus Hæmatodcs 49	....	....	1	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total of Carcinomatous Diseases	28	93	113	182	..	2	....	....	..	..	..	..	..	..	..	..	....	....	1	..	1	1	..	1	3	3	2	6	5	11
Total Diathetic Diseases	85	150	170	235	3	8	13	11	2	..	1	..	2	2	1	2	19	15	10	5	6	8	4	9	7	14	7	11	9	17
Order 2.—*Tubercular.*																														
Scrofula	23	30	1	2	..	1	9	15	4	6	3	5	1	3	..	..	17	29	2	..	4	1	..	..	1	..	..	..	..	..
Lumbar Abscess (Psoas Abscess, etc.)	4	5	2	2	..	.	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	1	2	1	2	1	1

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																																
Order 1.—*Diathetic.*																																
Cancer of Rectum	..	2	..	..	4	..	..	1	2	1	1	1	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	10	7	17	.05
" of Stomach	3	5	4	3	5	8	9	8	9	9	6	3	2	1	4	5	3	2	1	1	..	..	..	..	..	..	..	..	48	45	93	.30
" of Spleen	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Tongue	..	..	..	..	..	..	1	..	2	..	1	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	6	1	7	.02
" of Tongue and Fauces	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Throat	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Uterus	..	20	..	13	..	19	..	12	..	9	..	6	..	3	..	4	..	1	..	..	..	..	..	..	..	..	..	..	....	99	99	.32
" of Vagina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Fungus Hæmatodes	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Total of Carcinomatous Diseases	5	39	9	27	18	53	21	36	21	28	21	31	8	13	14	15	9	9	1	1	2	1	..	..	..	..	..	..	141	275	416	....
Total Diathetic Diseases	13	44	19	34	29	58	30	40	27	34	25	35	13	19	18	24	12	13	3	2	4	3	..	..	..	..	..	..	255	385	649	2.08
Order 2.—*Tubercular.*																																
Scrofula	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	32	56	.18
Lumbar Abscess (Psoas Abscess, etc.)	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	6	7	13	.04

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																														
Order 2.—*Tubercular.*																														
Tabes Mesenterica and Marasmus..	283	247	6	1	4	2	221	193	52	44	6	7	2	2	1	1	282	247	2	..	..	..	..	..	..	..	2	..	..	..
Phthisis Pulmonalis..............	794	791	1,406	1,181	53	47	22	28	22	21	13	7	10	7	9	11	76	74	23	24	26	41	106	156	262	283	274	293	302	243
Hydrocephalus and Tubercular Meningitis..................	325	263	6	5	5	1	141	115	90	77	38	32	17	15	14	8	300	247	21	17	3	..	2	2	1	..	..	..	..	..
Other Tubercular Diseases........	22	15	5	1	..	..	10	12	7	3	3	..	..	..	1	..	21	15	..	..	1	..	..	..	..	..	1	..	1	..
Rachitis.........................	17	12	....	1	..	..	10	7	4	3	1	1	1	1	..	..	16	12	1	..	..	1	..	..	..	..	..	..	..	..
Total Tubercular Diseases. ...	1,468	1,363	1,426	1,193	62	51	413	370	179	154	64	52	31	28	25	20	712	624	49	42	34	43	108	158	265	285	278	295	304	244
Total Constitutional Diseases...	1,553	1,513	1,596	1,428	65	59	426	381	181	154	65	52	33	30	26	22	731	639	59	47	40	51	112	167	272	299	285	306	313	261
	3,066		**3,024**		**124**		**807**		**335**		**117**		**63**		**48**		**1,370**		**106**		**91**		**279**		**571**		**591**		**574**	
CLASS III.—LOCAL DISEASES.																														
Order 1.—*Nervous.*																														
Meningitis........................	319	274	35	15	2	4	143	116	87	68	30	34	12	18	14	3	286	239	18	17	8	7	5	3	3	..	5	5	4	5
Encephalitis......................	22	28	7	10	1	..	11	9	3	6	..	4	..	1	1	3	15	23	3	2	2	1	..	..	..	1	1	2	2	..
Softening of Brain................	23	23	44	30	1	..	....	1	..	1	1	..	..	..	..	..	1	2	..	..	..	..	..	1	1	..	..	1	2	1
Apoplexy..........................	69	57	104	138	2	3	4	2	3	..	1	..	..	..	..	2	8	4	..	..	1	..	1	1	..	3	1	5	4	6

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class II.—CONSTITUTIONAL DISEASES.																																
Order 2.—*Tubercular.*																																
Tabes Mesenterica and Marasmus..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	289	248	537	1.75
Phthisis Pulmonalis................	287	204	221	192	184	135	140	92	109	66	82	52	49	56	32	30	17	17	5	8	4	4	1	2	..	..	..	..	2,200	1,972	4,172	13.59
Hydrocephalus and Tubercular Meningitis..................	3	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	331	268	599	1.95
Other Tubercular Diseases.........	..	..	1	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	16	43	.14
Rachitis..........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	13	30	.10
Total Tubercular Diseases.....	291	205	223	193	185	136	141	92	109	66	84	53	49	57	32	32	19	17	5	8	5	4	1	2	..	..	..	..	2,894	2,556	5,450	17.75
Total Constitutional Diseases...	304	249	242	227	214	194	171	132	136	100	109	88	62	76	50	56	31	30	8	10	9	7	1	2	..	..	..	..	3,149	2,941	6,090	19.83
	553		**469**		**408**		**303**		**236**		**197**		**138**		**106**		**61**		**18**		**16**		**3**		....		....		**6,090**		....	....
Class III.—LOCAL DISEASES.																																
Order 1.—*Nervous.*																																
Meningitis.........................	5	4	3	1	6	2	4	1	2	3	1	1	1	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	354	289	643	2.09
Encephalitis........................	..	2	1	1	1	1	3	1	..	1	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	38	67	.22
Softening of Brain..............	4	4	6	3	5	2	9	4	8	5	6	4	6	6	9	5	7	7	1	6	2	2	..	..	..	..	..	..	67	53	120	.39
Apoplexy.........................	13	14	11	9	12	19	26	17	18	20	22	18	23	17	18	25	8	23	3	6	2	6	1	1	1	1	..	..	173	195	368	1.20

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 1.—*Nervous.*																														
Insanity ✓	6	6	10	12	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	3	..	..	..	1	2	4
Epilepsy ✓	13	21	18	9	2	..	2	2	..	1	..	..	1	..	..	..	3	3	2	2	2	1	6	2	1	8	5	4	1	4
Convulsions ✓	350	307	2	3	5	3	282	244	52	48	9	13	3	3	1	1	347	309	4	..	1	..	..	..	..	..	..	..	..	..
Laryngismus Stridulus ✓	7	12	...	....	..	..	4	5	1	5	2	..	..	..	..	..	7	10	..	2	..	..	..	..	..	..	..	..	..	..
Paralysis ✓	37	18	35	22	2	1	1	....	..	..	..	..	..	..	..	..	1	....	3	..	..	..	1	..	..	..	1	2	2	2
Paraplegia ✓	1	2	6	9	..	..	....	....	..	..	..	1	..	..	..	..	....	1	..	..	..	..	..	..	..	1	1	..	.	1
Hemiplegia ✓	5	13	7	21	2	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Chorea ✓	....	3	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	2	..	1	..	1	..	..	..	..	..	..
Tetanus ✓	....	1	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Trismus Nascentium ✓	31	21	....	....	..	..	31	21	..	..	..	..	..	..	..	..	31	21	..	..	..	..	..	..	..	..	..	..	..	..
Myelitis ✓	2	2	3	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	1	..	2	..	..	..	1
Congestion of Brain ✓	61	49	9	9	..	3	40	19	10	14	2	3	1	4	..	2	53	42	..	..	1	..	1	..	2	1	1	2	..	..
Abscess of Brain ✓	6	1	....	....	..	..	2	....	1	..	..	..	..	..	..	..	3	....	..	1	1	..	..	..	..	..	1	..	..	..
Tumor of Brain ✓	6	7	7	4	1	..	....	1	..	1	..	..	..	..	..	..	....	2	..	1	..	..	1	..	1	..	1	1	3	..
Atrophy of Brain	....	2	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	..	..	..	..	..	..
Sclerosis of Brain ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Embolism of Brain ✓	1	1	2	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 1.—*Nervous.*																																
Insanity	2	1	..	3	5	1	1	2	1	1	1	..	..	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	16	18	34	.11
Epilepsy	2	..	1	..	4	1	1	1	3	1	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	31	30	61	.20
Convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	352	310	662	2.15
Laryngismus Stridulus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	12	19	.06
Paralysis	8	2	5	..	6	4	10	5	7	1	3	2	2	6	5	5	8	5	7	3	2	3	1	..	..	..	..	..	72	40	112	.36
Paraplegia	2	1	..	..	..	..	..	1	1	1	1	1	..	..	..	..	1	1	1	1	..	2	..	..	..	..	..	..	7	11	18	.06
Hemiplegia	..	1	1	3	1	..	1	3	1	2	1	3	3	5	1	5	2	6	1	2	..	2	..	1	..	..	..	..	12	34	46	.15
Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01
Tetanus	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Trismus Nascentium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	21	52	.17
Myelitis	..	..	..	..	1	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5	10	.03
Congestion of Brain	..	3	2	2	2	1	..	1	2	1	1	..	2	..	1	2	1	3	1	..	..	..	..	..	..	..	..	..	70	58	128	.42
Abscess of Brain	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	1	7	.02
Tumor of Brain	3	2	2	1	1	2	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	11	24	.08
Atrophy of Brain	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Sclerosis of Brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Embolism of Brain	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	3	3	6	.02

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 1.—*Nervous.*																														
Neuralgia (Trifacial) ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Atheroma of Cerebral Artery 91 ✓	1	2	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Embolism " " 74 ✓	2	1	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
Rupture of Aneurism of Cerebral Arteries 91 ✓	...	1	...	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Aphasia 84 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Sclerosis 84 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Softening of Spinal Cord 75 ✓	....	....	4	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Locomotor Ataxia ✓	3	1	3	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Masturbation 8 ✓ ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Direct Effect of Solar Heat ✓	3	5	8	3	..	..	1	1	..	..	..	..	..	..	..	2	1	3	..	1	1	..	..	..	..	1	1	1	1	..
Total Nervous Diseases	970	860	308	298	18	18	522	421	157	144	45	55	17	26	16	13	757	659	30	28	17	11	18	12	9	17	18	26	23	24
Order 2.—*Circulatory.* ✓																														
Pericarditis	15	16	32	21	1	..	1	1	1	..	..	..	..	..	..	..	2	1	2	4	3	3	2	2	3	1	4	2	5	2
Aneurism of Heart ✓	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Aorta ✓	17	9	42	12	1	2	....	1	..	..	..	..	..	..	..	..	....	1	1	..	..	..	..	..	2	..	5	1	6	4

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 1.—*Nervous.*																																
Neuralgia (Trifacial)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Atheroma of Cerebral Artery	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	3	4	.01
Embolism " "	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	3	5	.02
Rupture of Aneurism of Cerebral Arteries	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Aphasia	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Cerebro-Spinal Sclerosis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Softening of Spinal Cord	..	..	..	1	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
Locomotor Ataxia	3	1	1	1	..	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	6	4	10	.03
Masturbation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Direct Effect of Solar Heat	2	1	..	..	1	..	2	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	11	8	19	.06
Total Nervous Diseases	44	37	33	27	48	37	64	38	44	38	40	32	39	40	38	45	32	47	15	22	6	15	2	2	1	1	..	..	1,278	1,158	2,436	7.93
Order 2.—*Circulatory.*																																
Pericarditis	6	4	3	1	4	5	2	1	3	5	3	2	..	1	3	2	2	1	..	..	..	..	..	..	..	..	..	..	47	37	84	.27
Aneurism of Heart	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Aorta	11	3	12	4	7	3	6	1	3	1	5	1	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	59	21	80	.26

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 2.—*Circulatory.*																														
Aneurism of Popliteal Artery......	1	..	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Innominata Artery....	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Basilar Artery.........	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Pulmonary Artery.....	1	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Thoracic Aorta.........	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Aneurism into Intercostal, Frontal, and Femoral Artery......	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Embolism of Heart................	1	1	....	....	..	..	....	....	..	..	..	..	..	..	..	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Artery................	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Heart Clot.................. √90	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of the Heart.........	52	45	81	56	2	3	....	....	..	..	..	1	..	..	..	1	....	2	3	5	2	9	3	5	10	6	5	3	8	2
Valvular Disease of the Heart......	85	91	130	161	5	6	1	3	..	..	..	..	..	1	1	..	2	4	6	11	10	13	8	19	10	7	17	9	26	17
Ossification of Coronary Arteries...	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Valves of Heart.....	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Syncope..........................	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Fatty Degeneration of the Heart..	10	9	20	20	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	1	..	2
Endocarditis.......................	6	3	6	6	..	..	....	....	..	..	..	..	1	..	..	1	1	1	..	1	2	..	1	..	..	1	2	1	1	1
Disease of the Heart...............	13	19	28	35	..	1	1	1	..	..	..	..	..	..	..	..	1	1	..	6	1	..	1	2	2	2	5	1	4	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 2.—*Circulatory.*																																
Aneurism of Popliteal Artery......√	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Innominata Artery....√	..	.	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Basilar Artery........√	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Pulmonary Artery....√	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Thoracic Aorta........√	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Aneurism into Intercostal, Frontal, and Femoral Artery......√	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Embolism of Heart...............√	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Artery..............√	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Heart Clot...................90..√	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	....	1	.003
Hypertrophy of the Heart ....90..√	14	5	22	8	6	7	13	8	11	10	10	7	9	4	11	8	4	9	1	1	..	1	1	1	..	..	..	..	133	101	234	.76
Valvular Disease of the Heart.90...√	19	13	21	22	25	21	12	23	16	13	12	24	13	21	8	19	6	9	3	3	1	4	..	..	..	..	..	..	215	252	467	1.52
Ossification of Coronary Arteries.√.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Valves of Heart....√	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	....	1	1	.003
Syncope..........................√.	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Fatty Degeneration of the Heart....√90	1	1	2	2	2	2	3	3	6	4	6	5	2	3	2	4	4	1	1	..	..	..	..	..	..	1	..	..	30	29	59	.19
Endocarditis........90 - 4.........√.	..	1	1	1	1	1	1	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	9	21	.07
Disease of the Heart.........90....√.	3	6	1	8	5	5	3	4	3	3	..	2	7	6	4	1	1	4	..	3	..	..	..	..	..	..	..	..	41	54	95	.31

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity. United States.		Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 2.—*Circulatory.*																														
Angina Pectoris ✓	2	1	4	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Phlebitis ✓	....	1	....	1	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Epistaxis ✓	1	....	....	1	..	..	....	....	..	..	..	..	1	..	..	..	1	...	..	..	..	..	..	..	..	1	..	..	..	..
Rupture of Left Auricle of Heart ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
" of Left Ventricle of Heart ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Right Auricle of Heart ✓	1	....	1	2	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	1	1	..
" of Auricle of Heart ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Mesentery Artery ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Calcarious Degeneration of Arteries 91 ✓	1	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..
Thrombosis of Vena Cava 91 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
Varicose Vein Ulceration 93 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Phagedenic Varicose Ulcer 93 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
General Varices by Anastimosis 93	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Hœmophilia 69 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Atheroma of Arteries 91 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Circulatory Diseases	210	200	355	325	9	12	4	7	1	..	..	1	2	1	1	3	8	12	13	27	18	25	16	28	28	19	38	20	55	29

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	**35—**		**40—**		**45—**		**50—**		**55—**		**60—**		**65—**		**70—**		**75—**		**80—**		**85—**		**90—**		**95—**		**100** and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 2.—*Circulatory.*																																
Angina Pectoris...........	..	1	..	1	2	..	1	1	..	..	1	..	1	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	6	6	12	.04
Phlebitis........................	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
Epistaxis........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Rupture of Left Auricle of Heart...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Left Ventricle of Heart.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Right Auricle of Heart.	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
" of Auricle of Heart.......	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Mesentery Artery......	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Calcarious Degeneration of Arteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Thrombosis of Vena Cava.........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Varicose Vein Ulceration..........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Phagedenic Varicose Ulcer.......	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
General Varices by Anastimosis....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Hœmophilia........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Atheroma of Arteries.............	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Circulatory Diseases......	54	36	66	47	54	44	41	42	44	36	38	43	34	41	32	35	18	25	6	8	1	6	1	1	..	1	..	..	565	525	1,090	3.55

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity. United States. M.	Nativity. United States. F.	Nativity. Foreign. M.	Nativity. Foreign. F.	Colored M.	Colored F.	Under 1 Year. M.	Under 1 Year. F.	1— M.	1— F.	2— M.	2— F.	3— M.	3— F.	4— M.	4— F.	Total Under 5 Years. M.	Total Under 5 Years. F.	5— M.	5— F.	10— M.	10— F.	15— M.	15— F.	20— M.	20— F.	25— M.	25— F.	30— M.	30— F.
CLASS III.—LOCAL DISEASES.																														
Order 3.—*Respiratory.*																														
Laryngitis 98	73	76	6	2	1	..	8	12	22	22	12	14	9	10	10	3	61	61	11	16	1	..	..	..	..	..	1	..	..	..
Bronchitis	477	365	108	161	11	8	307	233	97	54	25	31	15	10	5	3	449	331	5	6	1	3	..	..	1	1	..	3	2	2
Pneumonia	922	799	636	445	25	16	356	299	201	181	60	61	24	36	22	20	663	597	35	30	11	12	20	20	45	36	67	45	84	43
Pleuritis	23	14	31	14	2	..	4	3	..	..	..	..	2	1	2	..	8	4	..	..	..	3	1	1	1	2	2	5	6	2
" Hydrothorax	2	1	2	2	..	..	1	....	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" Empyema	1	....	7	2	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	2	..	1	..	..	1
Gangrene of Lungs	....	1	5	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	2	..	..	..
Congestion of Lungs	64	42	17	28	1	2	38	26	5	2	5	1	2	..	..	1	50	30	..	3	1	1	..	..	3	2	4	1	1	1
Hæmorrhage of Lungs	4	2	10	3	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	1	1	..	1	1	1	..
Abscess of Lungs	1	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
Emphysema and Asthma	9	4	29	20	..	..	....	1	1	..	..	1	..	..	1	..	2	2	..	..	..	..	..	..	1	..	1	..	..	1
Oedema Glottidis	1	2	....	1	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	1	..	..	..	..	..	..	..	..	..	..
Fibroid Tumor of Mediastinum	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Mediastinum	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Ozæna 97	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Respiratory Diseases	1,579	1,306	852	679	40	26	715	575	327	260	102	108	52	58	40	27	1,236	1,028	51	56	15	19	21	22	54	42	79	55	94	50

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 3.—*Respiratory.*																																
Laryngitis	3	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	79	78	157	.51
Bronchitis	6	8	8	6	9	3	12	6	7	13	20	22	25	23	11	30	14	35	5	20	6	8	1	5	2	1	1	..	585	526	1,111	3.62
Pneumonia	91	46	92	45	109	39	78	44	73	47	59	47	45	63	36	52	22	43	19	19	7	13	2	2	..	1	..	..	1,558	1,244	2,802	9.12
Pleuritis	7	2	2	..	7	1	3	..	3	2	3	..	5	3	1	2	4	..	1	1	..	..	..	..	..	..	..	..	54	28	82	.27
“ Hydrothorax	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	4	3	7	.02
“ Empyema	1	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	2	10	.03
Gangrene of Lungs	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	6	.02
Congestion of Lungs	3	3	2	2	6	3	4	..	1	3	1	3	3	3	..	3	1	8	..	2	1	2	..	..	..	..	..	..	81	70	151	.49
Hæmorrhage of Lungs	5	1	2	..	1	..	..	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	14	5	19	.06
Abscess of Lungs	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Emphysema and Asthma	..	..	3	1	8	1	4	..	2	3	5	5	5	3	4	2	3	2	..	2	..	2	..	..	..	..	..	..	38	24	62	.20
Oedema Glottidis	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	.01
Fibroid Tumor of Mediastinum	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Sarcoma of Mediastinum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Ozæna	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Respiratory Diseases	118	61	110	55	143	47	101	51	90	68	90	78	86	95	53	91	45	88	25	44	14	26	3	7	2	2	1	..	2,431	1,985	4,416	14.38

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Stomatitis 109 ✓	11	10	....	....	1	..	10	9	..	..	1	1	..	..	..	..	11	10	..	..	..	..	..	..	..	..	..	..	..	..
Pharyngitis 109 ✓	2	2	....	1	..	..	....	1	..	1	..	..	..	..	1	..	1	2	..	..	1	..	..	..	..	..	..	..	..	..
Abscess of Pharynx 109 ✓	1	1	....	....	..	..	....	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Ulceration of Pharynx 109 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Retro-Pharyngeal Abscess 109 ✓	3	2	....	....	..	..	2	2	..	..	..	..	1	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..
Gastromalacia ✓	...	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis ✓	35	44	23	24	..	1	26	18	3	4	1	1	..	5	2	..	32	28	..	2	..	1	..	..	..	2	2	5	3	2
Dyspepsia ✓	11	16	3	3	..	..	6	14	2	1	1	..	..	..	..	..	9	15	..	..	..	..	..	..	..	..	..	..	..	..
Enteritis ✓	67	62	19	14	1	1	43	41	6	11	5	2	1	1	1	..	56	55	5	3	..	2	6	..	..	1	2	2	2	3
Gastro-Enteritis ✓	71	53	2	9	..	..	46	38	13	6	3	1	1	1	..	..	63	46	3	2	..	..	2	..	1	1	1	1	..	3
Hæmatemesis ✓	1	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Ascites ✓	....	1	1	1	..	..	....	....	..	..	..	1	..	..	..	..	....	1	..	..	..	..	..	1	..	..	..	..	..	..
Ulceration of Intestines (Perforation ?) 119 ✓	4	2	5	1	..	..	....	....	2	..	..	..	1	..	..	..	3	....	..	..	..	..	..	..	..	..	1	..	1	1
Perf. Ulcer of Duodenum 111 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Peri-Intestinal Abscess 119 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Constriction and Strangulation of Intestines 118 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
Occlusion of Intestines 118 ✓	1	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Stomatitis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	10	21	.07
Pharyngitis ✓	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5	.02
Abscess of Pharynx ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Ulceration of Pharynx ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Retro-Pharyngeal Abscess ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5	.01
Gastromalacia ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Gastritis ✓	1	4	..	1	4	2	3	7	4	..	2	2	2	..	2	4	..	6	2	1	1	..	..	1	..	..	..	..	58	68	126	.41
Dyspepsia ✓	..	..	..	..	..	..	1	1	1	..	1	..	1	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	14	19	33	.11
Enteritis ✓	..	..	2	5	..	1	1	..	4	1	1	3	..	..	4	..	2	..	1	..	..	..	..	..	..	..	..	..	86	76	162	.53
Gastro-Enteritis ✓	..	2	..	..	..	..	..	..	..	..	..	1	1	1	2	3	..	1	..	..	..	1	..	..	..	..	..	..	73	62	135	.44
Hæmatemesis ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Ascites ✓	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Ulceration of Intestines (Perforation ?) ✓	..	..	..	..	2	..	1	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	9	3	12	.04
Perf. Ulcer of Duodenum ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Peri-Intestinal Abscess ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Constriction and Strangulation of Intestines ✓	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Occlusion of Intestines ✓	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Occlusion of Gall Duct	1	...	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Hernia (Strangulated)	7	3	18	14	..	..	4	2	1	..	..	..	1	..	..	..	6	2	..	..	..	..	..	..	..	..	..	..	..	..
Intussusception of Intestines	4	3	6	3	..	..	3	1	..	..	..	1	..	..	..	..	3	2	1	..	..	..	..	..	1	1	..	1	..	..
Stricture of Intestines	1	1	1	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Rectum	1	3	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	..	1	..	..	1	2
" of Splenic flexure of Colon	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Œsophagus	1	....	....	....	..	..	...	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Pylorus	....	....	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of the Stomach	3	6	6	11	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	1	..	2
Hæmorrhage of Bowels	1	3	....	1	..	..	1	2	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	..	..	1
Colic	7	4	2	....	..	1	6	2	..	1	..	..	..	..	..	..	6	3	..	..	..	..	1	..	..	..	..	..	..	..
Fatty Degeneration of Liver	3	2	7	11	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	1	1	..	1	2	..
Hypertrophy of Liver	2	2	6	5	..	1	1	....	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	2	..
Cirrhosis of Liver	17	17	88	76	..	1	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	2	1	..	2	1	1	4	11	9
Abscess of Liver	3	1	6	2	..	..	....	....	..	..	..	..	..	1	..	..	....	1	..	..	..	..	1	..	1	..	1	..	2	..
Atrophy of Liver	1	1	1	2	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	1	..	..
Congestion of Liver	3	....	3	2	..	..	1	....	..	..	..	..	..	..	1	..	2	....	..	..	..	..	..	..	..	..	1	1	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Occlusion of Gall Duct	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Hernia (Strangulated)	2	2	3	1	3	1	..	1	..	3	1	3	3	2	3	1	1	..	2	1	1	..	..	..	..	..	..	..	25	17	42	.14
Intussusception of Intestines	..	..	..	..	3	..	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	6	16	.05
Stricture of Intestines	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	.01
" of Rectum	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	6	.02
" of Splenic flexure of Colon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Œsophagus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Pylorus	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
Ulcer of the Stomach	3	4	..	2	1	1	..	1	..	..	1	2	..	1	1	..	2	..	..	1	..	..	1	..	..	..	..	..	9	17	26	.08
Hæmorrhage of Bowels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	5	.02
Colic	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	9	4	13	.04
Fatty Degeneration of Liver	2	2	2	..	..	..	1	3	1	1	..	..	1	2	..	1	..	..	..	1	..	..	..	..	..	..	..	..	10	13	23	.07
Hypertrophy of Liver	..	..	1	..	1	2	1	1	1	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	8	7	15	.05
Cirrhosis of Liver	5	14	16	10	16	12	21	10	11	14	11	4	5	6	2	3	2	4	..	..	..	..	..	..	..	..	..	..	105	93	198	.64
Abscess of Liver	1	..	2	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	3	12	.04
Atrophy of Liver	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5	.02
Congestion of Liver	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	6	2	8	.03

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY. United States. M.	NATIVITY. United States. F.	NATIVITY. Foreign. M.	NATIVITY. Foreign. F.	Colored M.	Colored F.	Under 1 Year. M.	Under 1 Year. F.	1— M.	1— F.	2— M.	2— F.	3— M.	3— F.	4— M.	4— F.	Total Under 5 Years. M.	Total Under 5 Years. F.	5— M.	5— F.	10— M.	10— F.	15— M.	15— F.	20— M.	20— F.	25— M.	25— F.	30— M.	30— F.
CLASS III.—LOCAL DISEASES.																														
Order 4.—*Digestive.*																														
Tumor of Liver	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hepatitis	13	7	32	33	..	..	4	....	..	..	..	..	1	..	..	..	5	....	..	..	..	..	1	..	2	1	2	2	2	4
Gall Stone	....	3	4	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Obstruction of Biliary Duct	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ilium 114	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Bile Duct 124	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Abscess of Gluteal Region	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	1	..	..	..
" of Rectum 119	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Œsophagus 110	1	....	....	....	1	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Inguinal Gland 153	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	...	..	..	..	..	..	..	..	..	..	..	..	..
" of Parotid Gland 108	1	....	....	....	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Mesentery 126	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Perforation of Verm. Appendix	3	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	1	..	..	..	..	1
Leucocythæmia	3	2	2	1	..	..	....	....	1	..	..	..	..	..	..	..	1	....	2	..	..	..	..	..	..	..	..	..	..	1
Jaundice	27	18	5	4	..	..	26	15	..	..	1	1	..	..	..	..	27	16	..	..	..	..	..	..	..	..	..	1	..	..
Glossitis 109	1	....	1	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Perf. Ulcer of Cæcum 113	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Tumor of Liver	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Hepatitis	6	6	7	2	8	8	3	7	2	1	3	..	1	6	2	1	1	1	..	1	..	..	..	..	..	..	..	..	45	40	85	.28
Gall Stone	..	1	..	..	2	2	..	2	1	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	4	8	12	.04
Obstruction of Biliary Duct	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Ilium.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Bile Duct	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Abscess of Gluteal Region	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Rectum	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Inguinal Gland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Parotid Gland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Mesentery	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Perforation of Verm. Appendix	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	5	.02
Leucocythæmia	..	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	3	8	.03
Jaundice	..	1	1	..	..	..	..	1	..	..	1	1	1	1	..	..	..	..	..	1	1	..	1	..	..	..	..	..	32	22	54	.18
Glossitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Perf. Ulcer of Cæcum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																													
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																																
Order 4.—*Digestive.* ✓																																
Sarcoma of Viscera Abdomen 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Fistula in Ano 119 ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Infarction of Spleen 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Tumor of Abdomen 50 ✓	2	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
Hæmorrhoides ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Intestines ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of Spleen 64 ✓	1	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Tumor of Pancreas 50 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Gangrenous Abscess of Peritoneum ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Indigestion ✓	1	2	....	....	..	..	1	2	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..
Constipation ✓	1	1	....	....	..	..	1	....	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis 126 ✓	35	28	26	33	..	..	8	3	..	..	..	..	..	..	..	..	8	3	5	3	2	3	6	5	5	2	5	7	3	10
Total Digestive Diseases	358	307	279	267	3	6	195	152	31	26	12	8	6	8	5	1	249	195	16	11	5	8	19	8	16	12	22	28	30	41
Order 5.—*Urinary.*																																
Nephritis ✓	53	32	65	48	2	..	3	....	2	..	3	..	6	2	2	..	16	2	5	5	1	2	4	2	2	1	5	8	8	14
Nephria (Bright's Disease) ✓	162	153	299	295	11	14	2	4	..	..	3	2	1	2	1	1	7	9	5	4	2	5	8	11	19	31	33	40	22	39

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 4.—*Digestive.*																																
Sarcoma of Viscera Abdomen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Fistula in Ano	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Infarction of Spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Tumor of Abdomen	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	1	3	.01
Hæmorrhoides	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Sarcoma of Intestines	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1	1	.003
Hypertrophy of Spleen	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Tumor of Pancreas	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Gangrenous Abscess of Peritoneum	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Indigestion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Constipation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Peritonitis	4	6	4	5	1	2	2	2	3	6	7	1	1	3	3	2	2	..	..	..	..	..	..	1	..	..	..	..	61	61	122	.39
Total Digestive Diseases	27	47	41	30	44	35	40	38	32	30	35	20	16	29	23	18	11	15	6	6	3	1	2	2	..	..	..	..	637	574	1,211	3.94
Order 5.—*Urinary.*																																
Nephritis	13	10	11	2	12	3	14	7	8	7	7	8	3	3	5	5	3	1	..	..	1	..	..	..	..	..	..	..	118	80	198	.64
Nephria (Bright's Disease)	52	52	59	44	56	41	50	39	43	39	44	33	23	26	15	15	12	10	7	6	2	2	2	2	..	..	..	..	461	448	909	2.96

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 5.—*Urinary.*																														
Uræmia.................... 128 ✓	4	6	12	10	2	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	1	1	1	1	3	2	1
Diabetes......................... ✓	6	6	15	4	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	2	3	..	..	1	4	2
Calculus......................... ✓	4	....	3	1	..	..	1	....	..	..	..	..	..	..	..	..	1	....	1	..	..	..	..	..	..	..	..	..	..	.
Cystitis......................... ✓	10	2	22	3	1	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	2	..	..	..	..	..	1	..	..	..
Prostatitis.................. 135 ✓	1	....	2	....	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Suppression of Urine........ 131 ✓	2	....	1	....	..	..	....	....	1	..	..	..	..	..	1	..	2	....	..	..	..	..	..	..	..	..	..	..	..	..
Stricture of Urethra .... 134 ✓	3	....	4	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	1	..
Abscess of Bladder.......... 133 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of Bladder............. 133 ✓	2	....	1	. ..	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis of Bladder......... 133 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Abscess of neck of Bladder......... 133 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Fibroid Tumor of Bladder........ 50 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Melasma Addisonii.............. ✓	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Pyo-Nephrosis................ 131 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
Hydro-Nephrosis.................. ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	..	..	..	..	..
Pyelitis............................ ✓	....	1	3	2	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	1	..
Rupture of Urethra............. 124 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 5.—*Urinary.*																																
Uræmia	3	1	4	..	1	2	1	..	..	2	..	1	1	2	1	..	..	1	1	..	..	..	..	..	..	..	..	..	16	16	32	.10
Diabetes	1	..	1	..	1	1	4	..	3	1	1	1	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	21	10	31	.10
Calculus	..	..	1	..	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	7	1	8	.03
Cystitis	1	1	1	1	3	..	2	..	3	..	3	..	3	1	5	..	2	1	4	..	1	1	..	..	..	..	..	..	32	5	37	.12
Prostatitis	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
Suppression of Urine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	....	3	.01
Stricture of Urethra	1	..	..	..	2	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	...	7	.02
Abscess of Bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Ulcer of Bladder	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	....	3	.01
Paralysis of Bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Abscess of neck of Bladder	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Fibroid Tumor of Bladder	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Melasma Addisonii	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Pyo-Nephrosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	....	1	1	.003
Hydro-Nephrosis	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Pyelitis	..	..	..	..	..	1	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	6	.02
Rupture of Urethra 134	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 5.—*Urinary.*																														
Fatty Degeneration of Kidneys.... ✓	....	2	4	7	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	..	1	1	..	..	2
Congestion of Kidneys.............. ✓	4	3	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	1	..
Abscess of Kidneys.............. ✓	....	....	1	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Urinary Fistula.................... 132 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hæmaturia.......................... 131 ✓	....	....	2	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Hypertrophy of Prostate Gland..... 135 ✓	4	1	7	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Urinary Diseases..........	256	207	451	373	16	14	9	4	3	1	6	2	7	4	4	1	29	12	11	10	6	7	13	17	25	34	41	52	40	58
Order 6.—*Generative.*																														
Ovarian Tumor...................... ✓	....	3	....	10	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	1
" Dropsy.................. ✓	....	....	....	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Metritis (metro-Peritonitis, not Puerperal).................. ✓	....	3	....	8	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	..	4
Fibroid Uterine Tumor.............. ✓	....	7	....	8	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	3	..	..	..	..
Ovarities.......................... ✓	....	2	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	1	..	1
Abscess of Ovary................ 138 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Rupture of Ovarian Cyst......... 50 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Cystic Degeneration of Ovarian Cyst........................ 137 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	.	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 5.—*Urinary.*																																
Fatty Degeneration of Kidneys	..	3	1	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	4	9	13	.04
Congestion of Kidneys	..	1	2	1	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	7	3	10	.03
Abscess of Kidneys	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Urinary Fistula	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Hæmaturia	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Hypertrophy of Prostate Gland	..	..	1	..	..	..	..	1	1	..	..	..	..	..	5	..	2	..	2	..	..	..	..	..	..	..	..	..	11	1	12	.04
Total Urinary Diseases	72	68	82	48	77	51	75	49	62	49	60	44	35	34	32	20	23	14	15	6	7	4	2	3	..	..	..	..	707	580	1,287	4.19
Order 6.—*Generative.*																																
Ovarian Tumor	..	2	..	2	..	2	..	..	..	1	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	13	13	.04
" Dropsy	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
Metritis (metro-Peritonitis, not Puerperal)	..	1	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	11	11	.04
Fibroid Uterine Tumor	..	2	..	..	..	4	..	2	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	15	15	.05
Ovarities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
Abscess of Ovary 134	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Rupture of Ovarian Cyst 50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Cystic Degeneration of Ovarian Cyst	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 6.—*Generative.*																														
Ovarian Cyst 137 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of Uterus 141 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Malignant Tumor of Uterus 46 ✓	....	...	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cysto-Sarcoma of Ovary 46 ✓	....	...	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Pelvic Hæmatocele ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Retro-Uterine Hæmatocele ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Total Generative Diseases	....	18	....	36	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	5	..	6	..	7
Order 7.—*Locomotory and Osseous.* ✓																														
Arthritis	1	1	1	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	..	..	..	..	..	..
Lympho Sarcoma of Thigh ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" " of Neck ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	.	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Fibroid Sarcoma of Back ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Osteo-Sarcoma of Ribs ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" " of Ilium ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" " ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Cysto-Sarcoma of Axilla ✓	....	....	....	1	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 6.—*Generative.*																																
Ovarian Cyst ✓	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Ulcer of Uterus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Malignant Tumor of Uterus ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Cysto-Sarcoma of Ovary ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Pelvic Hæmatocele ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Retro-Uterine Hæmatocele ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Total Generative Diseases	..	7	..	4	..	10	..	3	..	5	..	5	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	54	54	.18
Order 7.—*Locomotory and Osseous.*																																
Arthritis ✓	..	..	..	1	..	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	6	.02
Lympho Sarcoma of Thigh ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
“ “ of Neck ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Fibroid Sarcoma of Back ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Osteo-Sarcoma of Ribs ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
“ “ of Ilium ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
“ “ ✓	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Cysto-Sarcoma of Axilla ✓	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Sarcoma of Iliac Fossa ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Osteo-Myelitis of Temporal Bone ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
Necrosis of Vertebræ ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	1	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Lower Jaw ✓	1	....	....	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..
" of Femur ✓	....	....	3	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	1
" of Temporal Bone ✓	....	1	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	2	..	..	..	..	..	1
" of Skull ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Tibia ✓	2	....	2	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	1	..	..	..
" of Upper Jaw ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Spine ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Ankle Joint ✓	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" Humerus ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	1	..	..	..	..	..
Spinal Disease ✓	7	8	5	3	..	..	....	....	..	..	..	2	..	..	1	..	1	2	1	1	1	1	1	..	1	3	..	1	..	2
Hip Disease ✓	20	13	5	1	..	..	...	....	..	..	1	2	1	..	3	1	5	3	9	4	3	2	4	2	2	2	..	1	1	..
Caries of Spine ✓	4	10	2	2	..	..	....	....	..	1	..	..	..	..	1	2	1	3	1	1	2	4	1	1	..	1	..	..	..	..
" of Paretal Bone ✓	....	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Ribs ✓	1	....	2	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 7.—*Locomotory and Osseous.*																																
Sarcoma of Iliac Fossa	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Osteo-Myelitis of Temporal Bone	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Necrosis of Vertebræ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Lower Jaw	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	.01
" of Femur	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	1	4	.01
" of Temporal Bone	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3	3	.01
" of Skull	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Tibia	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	....	4	.01
" of Upper Jaw	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Ankle Joint	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Humerus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Spinal Disease	..	..	2	..	..	..	..	..	..	..	3	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	12	11	23	.07
Hip Disease	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25	14	39	.13
Caries of Spine	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	6	12	18	.06
" of Paretal Bone	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Ribs	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Caries of Temporal Bone.......... 155 ✓	2	....	....	1	..	..	....	....	1	..	..	..	1	..	..	..	2	....	..	..	..	..	..	..	..	1	..	..	..	..
" of Ankle.................. 155 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	1	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Knee Joint............. 155 ✓	1	....	....	....	..	..	....	....	..	..	..	..	1	..	..	..	1	....		..	..	..	..	..	..	..	..	..	..	..
" " and Spine.......... 155 ✓	1	1	....	....	..	..	....	....	..	..	..	..	..	1	..	..	....	1	..	..	1	..	..	..	..	..	..	..	..	..
" of Petrous portion of Temporal Bone.......... 86 ✓	1	....	....	....	..	..	....	....	1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ankle and Knee.......... 155 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Odontoid process..... 155 ✓	....	....	....	1	..	..	. . .	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Ilium.................. 34 ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	..	..	..
Synovitis of Knee Joint...... 156 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Spine.............. 34 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	..	..	..	..	..	..
" of Knee................ 156 ✓	....	2	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	2	..	..	..	..	..	..	..	..	..	..
Abscess of Forearm............. 153 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Hand............... 153 ✓	....	1	....	1	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" Pelvic.................. 138 ✓	....	1	....	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	1
" of Iliac Fossa.............. 117 ✓	....	1	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Axilla................ ✓	....	2	...	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Knee................ 156 ✓	....	1	....	....	..	..	....	....	..	..	..	1	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 7.—*Locomotory and Osseous.*																																
Caries of Temporal Bone ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
" of Ankle ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Knee Joint ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" " and Spine ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Petrous portion of Temporal Bone ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Ankle and Knee ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Odontoid process ✓	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" Ilium ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Synovitis of Knee Joint ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Spine ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Knee ✓	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Abscess of Forearm ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Hand ✓	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
" Pelvic ✓	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01
" of Iliac Fossa ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
" of Axilla ✓	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
" of Knee ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																														
Order 7.—*Locomotory and Osseous.*																														
Abscess Iliac 153 ✓	1	2	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..
" of Leg 153 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Periostitis 155 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	1	..	..	..	..	..	..	..	..	..	..
" of Femur 155 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Rupture of Pelvic Abscess ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	1	..	..
Pelvic Cellulitis ✓	....	4	....	....	..	..	....	....	..	..	..	1	..	..	..	..	....	1	..	..	..	..	..	1	..	..	..	..	..	1
Phagedænic Ulcer of Sternum 39 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Fibro Vascular Tumor of Thigh 50 ✓	....	1	....	...	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
Progressive Muscular Atrophy 73 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Osteo-Myelitis 155 ✓	1	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	1	..	..	..	..	..	..	.	..	..
Total Locomotory and Osseous Diseases	51	53	31	29	2	..	2	2	2	2	1	6	3	1	6	4	14	15	13	11	9	7	7	6	6	9	3	4	3	7
Order 8.—*Integumentary.* ✓																														
Abscess (not stated) 153	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" of Nates 153 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
" of Chest 153 ✓	1	1	....	....	..	..	1	....	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Thigh 153 ✓	2	3	2	2	..	..	....	2	1	..	..	..	1	1	..	..	2	3	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 7.—*Locomotory and Osseous.*																																
Abscess Iliac	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
" of Leg	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Periostitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Femur	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Rupture of Pelvic Abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Pelvic Cellulitis	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01
Phagedænic Ulcer of Sternum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Fibro Vascular Tumor of Thigh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Progressive Muscular Atrophy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Osteo-Myelitis	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
Total Locomotory and Osseous Diseases	2	5	7	3	2	6	1	..	2	2	5	2	..	3	2	..	3	2	3	..	..	..	..	..	..	..	..	..	82	82	164	.54
Order 8.—*Integumentary.*																																
Abscess (not stated)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Nates 153	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Chest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Thigh	1	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	5	9	.03

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 8.—*Integumentary.*																														
Abscess of Knee, Hip and Ankle 152 ✓	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" of Neck 153 ✓	2	1	1	....	..	..	2	1	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Thoracic and Knee 107 ✓	1	1	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Back 153 ✓	1	....	1	....	1	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Side 153 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Multiple 153 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Cœcum 119 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	1	..	..	..	..	..	..	..	..
" of Pleura 10[illegible] ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" of Mastoid 96 ✓	....	....	1	....	..	..	...	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Natis and Scrotum 153 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Head 153 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" under Dorsal Muscles 158 ✓	....	....	1	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Pemphigus 154 ✓	2	4	....	1	..	..	2	4	..	..	..	..	..	..	..	..	2	4	..	..	..	..	..	..	..	..	..	..	..	1
Otitis 96 ✓	9	10	3	1	..	..	2	5	1	3	1	..	..	..	2	..	6	8	..	1	2	1	1	1	1	..	1	..	1	..
Ulcer of Sacrum ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Leg ✓	....	3	1	4	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Hand ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																																
Order 8.—*Integumentary.*																																
Abscess of Knee, Hip and Ankle....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Neck....................	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	.01
" of Thoracic and Knee........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" of Back....................	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" of Side....................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Multiple..................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Cœcum..................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Pleura..................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Mastoid..................	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Natis and Scrotum......	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Head....................	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" under Dorsal Muscles......	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Pemphigus....................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	7	.02
Otitis..........................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	11	23	.07
Ulcer of Sacrum..................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Leg....................	..	1	..	2	..	..	1	..	..	1	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	1	7	8	.03
" of Hand....................	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																														
Order 8.—*Integumentary.*																														
Ulcer of Arm ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Toe ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Back and Hip ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Varicose Ulcer of Thigh 93 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Sarcoma of Neck 49 ✓	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
Nævoid Tumor of Jaw 50 ✓	....	1	....	....	..	..	....	1	..	..	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Omphalitis ✓	1	1	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Lymphadeunna of Neck 65 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Elephantiasis 154 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Otorrhœa ✓ ✓	....	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
Eczema 154	3	6	1	....	..	..	3	3	..	2	..	1	..	..	..	..	3	6	..	..	..	..	..	..	..	..	..	..	1	..
Phlegmonous Cellulitis 153 ✓	1	....	....	....	..	..	....	....	..	..	1	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Furuncles 15✓ ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Impetigo 151	1	....	....	...	1	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene of Hand 151 ✓	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Leg 151	....	1	....	....	..	..	....	....	..	1	..	..	..	..	..	..	....	1	..	..	..	..	..	..	..	..	..	..	..	..
" of Foot 151	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 8.—*Integumentary.*																																
Ulcer of Arm	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Toe	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Back and Hip	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Varicose Ulcer of Thigh	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Sarcoma of Neck	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Nævoid Tumor of Jaw	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Omphalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Lymphadeunna of Neck	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Elephantiasis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Otorrhœa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	6	10	.03
Phlegmonous Cellulitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Furuncles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Impetigo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Gangrene of Hand	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" of Foot	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity. United States.		Nativity. Foreign.		Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class III.—LOCAL DISEASES.																																
Order 8.—*Integumentary.*																																
Bed Sores ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Exophthalmus 60 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	..	..	..	1	..	..
Conjunctivitis 85 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Elephantiasis of Græcorum 204	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Erythema ✓	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Integumentary Diseases	31	38	16	17	4	..	18	21	2	8	2	1	1	1	2	..	25	31	..	1	2	2	1	1	1	1	2	1	4	3
Total Local Diseases	3,455	2,989	2,292	2,024	92	76	1,465	1,182	523	441	168	181	88	99	74	49	2,318	1,952	134	144	72	79	95	95	139	139	203	192	249	219
	6,444		**4,316**		**168**		**2,647**		**964**		**349**		**187**		**123**		**4,270**		**278**		**151**		**190**		**278**		**395**		**468**	
Class IV.—DEVELOPMENTAL DISEASES.																																
Order 1.—*Children.* ✓																																
Premature Birth 161	314	234	1	....	2	..	315	234	..	..	..	..	..	..	..	..	315	234	..	..	..	..	..	..	..	..	..	..	..	..
Preternatural Birth 159 ✓	37	27	....	....	1	..	37	27	..	..	..	..	..	..	..	..	37	27	..	..	..	..	..	..	..	..	..	..	..	..
Cyanosis 162 ✓ ✓	53	39	....	....	..	..	51	39	..	..	..	..	2	..	..	..	53	39	..	..	..	..	..	..	..	..	..	..	..	..
Atelectasis Pulmonum [illegible] ✓	73	52	1	....	..	..	74	51	..	1	..	..	..	..	..	..	74	52	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875 –(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class III.—LOCAL DISEASES.																																
Order 8.—*Integumentary.*																																
Bed Sores 154 ✓	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Exophthalmus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Conjunctivitis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Elephantiasis of Græcorum ✓	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Erythema ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Integumentary Diseases	5	1	1	3	2	2	1	2	..	1	..	1	2	2	..	..	1	2	..	1	..	..	..	..	..	..	..	..	47	55	102	.33
Total Local Diseases	322	262	340	217	370	232	323	223	274	229	268	225	212	244	180	209	133	194	70	87	31	52	10	15	3	4	1	..	5,747	5,013	10,760	35.04
	584		**557**		**602**		**546**		**503**		**493**		**456**		**389**		**327**		**157**		**83**		**25**		**7**		**1**		**10,760**		....	....
Class IV.—DEVELOPMENTAL DISEASES.																																
Order 1.—*Children.* ✓																																
Premature Birth ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	315	234	549	1.79
Preternatural Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37	27	64	.21
Cyanosis ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	53	39	92	.29
Atelectasis Pulmonum ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	74	52	126	.41

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class IV.—DEVELOPMENTAL DISEASES.																														
Order 1.—*Children.*																														
Spina Bifida 159 ✓	16	6	....	....	..	..	14	6	1	..	..	..	1	..	..	..	16	6	..	..	..	..	..	..	..	..	..	..	..	..
Imperforate Anus 154 ✓	3	1	....	...	..	1	3	1	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..
Other Malformations 151 ✓	8	7	....	....	1	..	7	7	..	..	1	..	..	..	..	..	8	7	..	..	..	..	..	..	..	..	..	..	..	..
Hæmorrhage from Umbilicus 16✓ ✓	8	10	....	....	..	..	8	10	..	..	..	..	..	..	..	..	8	10	..	..	..	..	..	..	..	..	..	..	..	..
Cleft Palate 1 1 ✓	1	2	....	....	..	..	1	2	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..
Abscess of Navel 155 ✓	1	....	....	....	..	..	1	....	..	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Developmental Diseases of Children	514	378	2	....	4	1	511	377	1	1	1	..	3	..	..	..	516	378	..	..	..	..	..	..	..	..	..	..	..	..
Order 2.—*Women.* ✓																														
Chlorosis 58	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	..	..	..	..	..
Childbirth ✓	....	7	....	14	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	3	..	9	..	3
Flooding ✓	...	6	....	22	..	..	....	....	..	..	..	..	..	..	..	..	...	....	..	..	..	..	..	..	..	5	..	4	..	6
Puerperal Metritis ✓	....	32	....	127	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	9	..	24	..	49	..	39
" Convulsions ✓	...	16	....	11	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	2	..	7	..	9	..	2
" Mania ✓	....	3	....	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	3	..	4	..	1
" Septicæmia 146 ✓	....	4	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	3	..	1	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class IV.—DEVELOPMENTAL DISEASES.																																
Order 1.—*Children.*																																
Spina Bifida ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	6	22	.07
Imperforate Anus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	.01
Other Malformations ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	7	15	.05
Hæmorrhage from Umbilicus ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	10	18	.06
Cleft Palate ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	.01
Abscess of Navel ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Developmental Diseases of Children	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	516	378	894	2.91
Order 2.—*Women.* ✓																																
Chlorosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Childbirth ✓	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	21	21	.07
Flooding ✓	..	7	..	4	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	28	28	.09
Puerperal Metritis ✓	..	25	..	9	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	159	159	.52
" Convulsions ✓	..	2	..	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	27	27	.09
" Mania ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	8	8	.03
" Septicæmia ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class IV.—DEVELOPMENTAL DISEASES.																														
Order 2.—*Women.*																														
Miscarriage and Abortion 145 ✓	....	4	....	13	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	2	..	6	..	3
Phlegmasia Dolens 147 ✓	....	....	....	5	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	..	1
Placenta Prævia 144 ✓	....	2	....	16	..	..	....	....	..	..	..	..	..	.	..	..	....	....	..	..	..	..	..	..	..	..	..	5	..	3
Albuminuria of Pregnancy ✓	....	3	....	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	1	..	1	..	3
Uræmia of Childbirth ✓	....	3	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	2	..	1	..	..	..	..
" of Pregnancy ✓	....	3	....	4	.	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	1	..	2	..	..	..	2
Pelvic Cellulitis from Childbirth ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	1
Amenorrhœa ✓	....	....	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Menorrhagia 140 ✓	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Rupture of Uterus ✓	....	2	....	4	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	2	..	2
Total Diseases of Women	....	86	....	229	..	1	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	17	..	53	..	91	..	66
Order 3.—*Age.*																														
Senile Debility ✓	24	42	91	213	2	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Senile Gangrene ✓	1	....	7	7	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Diseases of Age	25	42	98	220	2	3	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS IV.—DEVELOPMENTAL DISEASES.																																
Order 2.—*Women.*																																
Miscarriage and Abortion	..	3	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	17	17	.06
Phlegmasia Dolens	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	5	5	.02
Placenta Prævia	..	7	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	18	18	.06
Albuminuria of Pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	6	6	.02
Uræmia of Childbirth	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	4	4	.01
" of Pregnancy	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	7	7	.02
Pelvic Cellulitis from Childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Amenorrhœa	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
Menorrhagia	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Rupture of Uterus	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	6	6	.02
Total Diseases of Women	..	55	..	26	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	315	315	1.22
Order 3.—*Age.*																																
Senile Debility	..	..	..	..	..	1	..	..	3	3	5	7	12	20	14	47	24	46	30	60	17	37	4	7	5	14	1	13	115	255	370	1.20
Senile Gangrene	..	..	..	..	..	..	..	1	..	..	..	..	3	2	1	1	3	2	..	..	1	..	..	1	..	..	..	..	8	7	15	.05
Total Diseases of Age	..	..	..	..	..	1	..	1	3	3	5	7	15	22	15	48	27	48	30	60	18	37	4	8	5	14	1	13	123	262	385	1.25

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class IV.—DEVELOPMENTAL DISEASES.																														
Order 4.—*Nutrition.*																														
Atrophy ✓	17	6	....	....	..	..	14	6	1	..	1	..	..	..	..	..	16	6	1	..	..	..	..	..	..	..	..	..	..	..
Asthenia (Debility) ✓	39	40	3	5	..	..	39	38	..	1	..	..	..	..	..	..	39	39	..	..	..	..	..	..	1	..	..	..	..	..
Total Diseases of Nutrition	56	46	3	5	..	..	53	44	1	1	1	..	..	..	..	..	55	45	1	..	..	..	..	..	1	..	..	..	..	..
Total Developmental Diseases	595	552	103	454	6	5	564	421	2	2	2	..	3	..	..	..	571	423	1	..	..	..	..	17	1	53	..	91	..	66
	1,147		**557**		**11**		**985**		**4**		**2**		**3**		....		**994**		**1**		..		**17**		**54**		**91**		**66**	
Class V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Fractures and Contusions	38	3	62	4	..	..	2	....	..	..	..	..	..	..	..	..	2	....	4	1	6	..	12	2	8	1	12	..	8	..
Wounds	2	....	3	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	1	..
" of Hand by a Hook	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" of Foot	1	1	....	....	..	..	....	....	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" by Gunshot	3	2	5	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	1	2	1	1	..	..	..	1	..	1	..
Killed by Vehicles in the Streets	38	10	34	7	..	..	....	....	..	2	2	3	1	..	1	..	4	5	14	3	10	1	5	1	7	..	5	..	7	2

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS IV.—DEVELOPMENTAL DISEASES.																																
Order 4.—*Nutrition.*																																
Atrophy ✓	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	6	23	.07
Asthenia (Debility) ✓	..	..	..	3	..	1	1	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42	45	87	.28
Total Diseases of Nutrition	..	..	..	3	..	1	1	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59	51	110	.36
Total Developmental Diseases	..	55	..	29	..	9	1	1	3	5	5	7	16	22	15	48	27	48	30	60	18	37	4	8	5	14	1	13	698	1,006	1,704	5.74
	55		**29**		**9**		**2**		**8**		**12**		**38**		**63**		**75**		**90**		**55**		**12**		**19**		**14**		**1,704**		...	....
CLASS V.—DEATH BY VIOLENCE.																																
Order 1.—*Accident and Negligence.*																																
Fractures and Contusions	10	..	11	1	10	1	8	..	5	..	3	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	100	7	107	.35
Wounds	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	....	5	.02
" of Hand by a Hook	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" of Foot	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" by Gunshot	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	2	10	.03
Killed by Vehicles in the Streets	6	..	2	..	4	1	4	2	..	1	1	1	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	72	17	89	.29

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Falls	68	26	122	38	1	1	2	2	4	5	3	3	4	1	3	3	16	14	20	4	8	2	4	1	10	4	18	3	14	4
Burns and Scalds	40	49	6	16	..	..	2	4	7	7	10	5	10	3	4	2	33	21	2	12	..	4	..	4	1	3	4	2	1	1
Poison by Irritant	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	..	..	..	..	..	..
" by Lead	....	....	2	....	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..
" by Carbolic Acid	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
" by Ether	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Morphine	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Opium	1	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" by Overdose of Cholera mixture	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
" by Hyoscyamus	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" by Magnetic Zinc	....	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	..
" by Kerosene Oil	....	....	....	1	..	..	....	...	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" by Tincture of Aconite	....	1	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
" (not stated)	....	1	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	.	..	1	..	..	..	..
Suffocation (Asphyxia)	10	22	3	1	..	..	8	20	..	1	..	..	..	..	..	..	8	21	..	..	..	..	..	1	1	..	..	..	1	1
Drowning	44	9	106	14	..	..	2	2	1	1	..	..	..	1	..	..	3	4	13	2	9	1	5	1	13	1	15	4	13	1
Neglect and Exposure	10	12	....	....	..	..	10	12	..	..	..	..	..	..	..	..	10	12	..	..	..	..	..	..	..	..	..	..	..	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—DEATH BY VIOLENCE.																																
Order 1.—*Accident and Negligence.*																																
Falls	18	4	15	4	20	1	12	5	14	6	10	..	6	2	1	4	2	6	..	..	1	..	1	..	..	..	..	..	190	64	254	.83
Burns and Scalds	1	5	2	3	..	..	..	3	..	1	..	..	..	1	..	2	..	1	..	2	2	..	..	..	..	..	..	..	46	65	111	.36
Poison by Irritant	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Lead	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	....	2	.006
" by Carbolic Acid	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Ether	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Morphine	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" by Opium	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" by Overdose of Cholera mixture	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
" by Hyoscyamus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" by Magnetic Zinc	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" by Kerosene Oil	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
" by Tincture of Aconite	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
" (not stated)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1	1	.003
Suffocation (Asphyxia)	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	23	36	.12
Drowning	28	4	26	1	11	..	10	2	..	1	2	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	150	23	173	.56
Neglect and Exposure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	12	22	.07

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class V.—DEATH BY VIOLENCE.																														
Order 1.—*Accident and Negligence.*																														
Surgical Operations	34	33	33	35	2	1	6	....	3	..	2	2	1	..	2	3	14	5	4	2	..	2	4	2	2	3	2	4	8	11
Inanition, Exposure, fall between two Bales of Hay	1	....	....	....	..	..	....	....	..	..	..	..	1	..	..	..	1	....	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation by Hanging	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..	..	..	..	..	..
Frost-bite	1	....	....	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Sudden Deaths, cause unascertained	1	1	1	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Total Accident and Negligence.	√294	171	382	120	3	2	33	41	15	16	18	14	17	5	10	8	93	84	59	25	35	11	31	12	44	16	59	13	55	20
Order 2.—*Homicide.*																														
By Cut, Stab	3	....	7	1	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	3	..	2	..
By Gunshot	3	3	6	2	..	..	....	....	..	..	..	..	..	1	..	..	....	1	..	..	1	2	2	..	1	1	..	1	1	..
By Blows	3	2	18	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	1	..	..	1	..	..	..	.	2	1	2	1
By Kick	1	....	2	...	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	2	..	..	..	..	..
By Abortion	....	...	....	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	1	.	..
By being thrown into Privy Vault	1	1	....	....	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
By being struck by a red hot horse-shoe	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
By Stab of Penis, severing Urethra	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	1	..

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—DEATH BY VIOLENCE.																																
Order 1.—*Accident and Negligence.*																																
Surgical Operations	4	3	6	11	3	6	5	8	5	6	5	2	2	1	2	..	1	2	..	..	..	..	..	..	..	..	..	..	67	68	135	.44
Inanition, Exposure, fall between two Bales of Hay	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Suffocation by Hanging	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Frost-bite	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
Sudden Deaths, cause unascertained	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	.01
Total Accident and Negligence.	√ 73	17	64	20	51	10	40	21	26	15	22	4	10	5	4	6	5	10	1	2	3	..	1	..	..	..	..	..	676	291	967	3.15
Order 2.—*Homicide.*																																
By Cut, Stab	2	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	1	11	.04
By Gunshot	2	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	5	14	.05
By Blows	5	..	3	1	1	..	1	1	5	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21	5	26	.08
By Kick	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
By Abortion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	2	2	.006
By being thrown into Privy Vault	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	.006
By being struck by a red hot horse-shoe	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
By Stab of Penis, severing Urethra.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	NATIVITY. United States. M.	NATIVITY. United States. F.	NATIVITY. Foreign. M.	NATIVITY. Foreign. F.	Colored M.	Colored F.	Under 1 Year. M.	Under 1 Year. F.	1— M.	1— F.	2— M.	2— F.	3— M.	3— F.	4— M.	4— F.	Total Under 5 Years. M.	Total Under 5 Years. F.	5— M.	5— F.	10— M.	10— F.	15— M.	15— F.	20— M.	20— F.	25— M.	25— F.	30— M.	30— F.
CLASS V.—DEATH BY VIOLENCE.																														
Order 2.—*Homicide.*																														
By being pushed and thrown upon a Stone	1	....	....	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	..	..	..	..
By being pushed off Street Car	...	....	1	....	..	..	....	....	..	..	..	..	.	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Total Homicidal Deaths	12	6	36	8	..	..	1	1	..	..	..	..	..	1	..	..	1	2	1	..	1	3	3	..	4	2	6	3	6	1
Order 3.—*Suicide.*																														
By Poison	7	5	35	14	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	2	2	3	4	2	1	4	1
By Drowning	....	1	5	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	1	..	..	..	1
By Hanging	2	2	11	2	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	1	..	..	..	3	1	1	2
By Leap	1	1	2	3	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	2	1	..	..	..
By Gunshot	18	1	27	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	2	..	2	1	4	..	7	..
By Cutting	3	....	9	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	3	..
By butting Head against Bedstead	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
By beating his Head with a Paving Stone	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
By Leap into Machinery	....	....	1	....	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	..	..	..	..
Total Suicidal Deaths	31	10	92	22	..	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	5	2	7	8	10	2	15	4

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—DEATH BY VIOLENCE.																																
Order 2.—*Homicide.*																																
By being pushed and thrown upon a Stone	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.00
By being pushed off Street Car	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Homicidal Deaths ✓	10	..	5	2	3	..	2	1	5	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	48	14	62	.20
Order 3.—*Suicide.*																																
By Poison	7	2	4	3	9	2	5	1	5	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	42	19	61	.20
By Drowning	1	..	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	5	4	9	.03
By Hanging	1	..	1	..	..	..	1	..	4	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	13	4	17	.05
By Leap	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	7	.02
By Gunshot	2	..	8	..	4	..	6	..	5	..	1	..	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	45	1	46	.15
By Cutting	5	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	....	12	.04
By butting Head against Bedstead	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
By beating his Head with a Paving Stone	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
By Leap into Machinery	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Suicidal Deaths ✓	17	3	18	3	14	3	14	1	16	..	1	2	1	2	3	..	2	1	..	1	..	..	..	..	..	..	..	..	123	32	155	.50

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	Nativity.				Colored		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class V.—DEATH BY VIOLENCE.																														
Order 5.—*Execution.*																														
William Ellis	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	...	..	..	..	..	..	..	1	..	..	..	..	..
Charles Weston	1	....	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	1	..	..	..	..	..
William Thompson	1	...	....	....	1	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..	..	1	..	..	..
Total Judicial Executions	3	....	....	....	3	..	....	....	..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	2	..	1	..	..	..
Total Violent Deaths	340	187	510	150	6	2	34	42	15	16	18	14	17	6	10	8	94	86	60	25	36	14	39	14	57	26	76	18	76	25
	527		660		8		76		31		32		23		18		180		85		50		53		83		94		101	
Grand Total from all Causes	10,752	9,992	5,227	4,738	215	186	4,569	3,971	1,628	1,508	725	732	511	501	360	343	7,793	7,055	700	754	216	233	319	362	597	648	679	729	764	662
	20,744		9,965		401		8,540		3,136		1,457		1,012		703		14,848		1,454		449		681		1,245		1,408		1,426	

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875—(*Continued*).

Causes of Death.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		Total by Sexes.		Total both Sexes.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Class V.—DEATH BY VIOLENCE.																																
Order 5.—*Execution.*																																
William Ellis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Charles Weston	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
William Thompson	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	....	1	.003
Total Judicial Executions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	....	3	.01
Total Violent Deaths	100	20	87	25	68	13	56	23	47	15	24	6	11	7	7	6	7	11	1	3	3	..	1	..	..	..	..	..	850	337	1,187	3.86
	120		112		81		79		62		30		18		13		18		4		3		1		....		....		1,187		....	....
Grand Total from all Causes	820	648	762	585	720	505	607	412	498	390	455	353	328	385	285	349	222	312	115	177	69	109	18	29	10	19	2	14	15,979	14,730	30,709	100.00
	1,468		1,347		1,225		1,019		888		808		713		634		534		292		178		47		29		16		30,709		....	....

RECAPITULATION.

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

CAUSES OF DEATH.	NATIVITY.				Colored.		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
	United States.		Foreign.																											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Classes:																														
ZYMOTIC.........	4,809	4,751	726	682	46	44	2,080	1,945	907	895	472	485	370	366	250	264	4,079	3,955	446	538	68	89	73	69	128	131	115	122	126	91
CONSTITUTIONAL.	1,553	1,513	1,596	1,428	65	59	426	381	181	154	65	52	33	30	26	22	731	639	59	47	40	51	112	167	272	299	285	306	313	261
LOCAL..........	3,455	2,989	2,292	2,024	92	76	1,465	1,182	523	441	168	181	88	99	74	49	2,318	1,952	134	144	72	79	95	95	139	139	203	192	249	219
DEVELOPMENTAL.	595	552	103	454	6	5	564	421	2	2	2	..	3	..	..	..	571	423	1	..	..	..	..	17	1	53	..	91	..	66
VIOLENCE........	340	187	510	150	6	2	34	42	15	16	18	14	17	6	10	8	94	86	60	25	36	14	39	14	57	26	76	18	76	25
FIRST QUARTER......	2,485	2,266	1,481	1,298	56	39	877	721	394	325	189	204	141	108	85	87	1,686	1,445	160	208	51	63	89	103	168	155	220	200	225	175
SECOND QUARTER....	2,373	2,149	1,335	1,175	54	52	893	716	312	323	186	181	129	127	94	88	1,614	1,435	171	184	51	63	88	84	159	172	161	180	182	186
THIRD QUARTER.....	3,585	3,335	1,170	1,077	51	50	1,970	1,824	568	544	173	151	114	107	82	72	2,907	2,698	200	152	57	56	68	83	148	185	150	167	185	127
FOURTH QUARTER ...	2,309	2,242	1,241	1,188	54	45	829	710	354	316	177	196	127	159	99	96	1,586	1,477	169	210	57	51	74	92	122	136	148	182	172	174
Percentage on Total Mortality of each Sex in each period of life............	35.01	32.54	17.02	15.43	.70	.60	14.88	12.93	5.30	4.91	2.36	2.38	1.66	1.63	1.17	1.12	25.38	22.97	2.28	2.45	.70	.76	1.04	1.18	1.94	2.11	2.21	2.37	2.49	2.16
Percentage on Total Mortality of both Sexes in each period of life........	67.55		32.45		1.30		27.81		10.21		4.74		3.29		2.29		48.35		4.73		1.46		2.22		4.05		4.58		4.65	

RECAPITULATION—(*Continued*).

DEATHS IN THE CITY OF NEW YORK, FROM ALL CAUSES, DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

CAUSES OF DEATH.	35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.	Percentage of each Cause on Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Classes :																																
ZYMOTIC.........	94	62	93	87	68	57	56	33	38	41	49	27	27	36	33	30	24	29	6	17	8	13	2	4	2	1	..	1	5,535	5,433	10,968	35.52
CONSTITUTIONAL.	304	249	242	2[illegible]7	214	194	171	132	136	100	109	88	62	76	50	56	31	30	8	10	9	7	1	2	..	..	..	..	3,149	2,941	6,090	19 83
LOCAL..........	322	262	340	217	370	232	323	223	274	229	268	225	212	244	180	209	133	194	70	87	31	52	10	15	3	4	1	..	5,747	5,013	10,760	35.04
DEVELOPMENTAL.	..	55	..	29	..	9	1	1	3	5	5	7	16	22	15	48	27	48	30	60	18	37	4	8	5	14	1	13	698	1,006	1,704	5.74
VIOLENCE........	100	20	87	25	68	13	56	23	47	15	24	6	11	7	7	6	7	11	1	3	3	..	1	..	..	..	..	..	850	337	1,187	3.86
FIRST QUARTER......	216	177	232	145	211	137	162	119	139	111	129	100	88	124	71	94	61	97	31	57	17	41	5	6	5	4	..	3	3,966	3,564	7,530	24.52
SECOND QUARTER...	209	165	199	148	200	107	151	100	119	102	114	92	106	82	73	88	55	69	31	31	17	21	7	7	..	6	1	2	3,708	3,324	7,032	22.90
THIRD QUARTER.....	203	151	143	13[illegible]	143	118	130	96	105	73	87	84	63	72	67	82	45	67	29	38	18	20	4	8	2	2	1	2	4,755	4,412	9,167	29.85
FOURTH QUARTER ...	192	155	188	161	166	143	164	97	135	104	125	77	71	107	74	85	61	79	24	51	17	27	2	8	3	7	..	7	3,550	3,430	6,980	22.73
Percentage on Total Mortality of each Sex in each period of life	2.67	2.11	2.48	1.90	2.34	1.64	1.98	1.34	1.62	1.27	1.48	1.15	1.07	1.25	.98	1.14	.72	1.01	.87	.58	.22	.35	.06	.09	.03	.06	.006	.05	52.03	47.97	....	....
Percentage on Total Mortality of both Sexes in each period of life........	4.78		4.38		3.98		3.32		2.89		2.63		2.32		2.07		1.73		.95		.57		.15		.09		.05		100.00		....	....

MORTALITY OF CHILDREN ONE YEAR OLD AND UNDER, IN 1874, IN

Month.	1 Month Old and Under.								From 1 to 2 Months.								From 2 to 3 Months.							
	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.
January.....	1	3	3	2	161	170	36	8	8	2	1	1	54	66	8	4	2	2	1	3	37	45	4	6
February...	..	2	3	2	141	148	25	6	5	3	..	3	29	40	5	8	6	..	..	..	39	45	3	11
March	4	2	..	3	125	134	24	5	1	3	..	1	31	36	..	7	3	1	..	..	32	36	6	3
April.......	1	3	..	1	127	132	13	6	3	2	..	4	26	35	3	10	4	..	..	2	32	38	1	10
May........	2	2	4	9	134	151	18	13	2	1	..	12	32	47	3	15	..	..	..	7	24	31	4	5
June	8	1	2	2	129	142	21	11	12	1	..	4	31	48	9	14	4	..	..	3	35	42	4	12
July........	10	1	1	10	219	241	32	62	10	2	..	7	114	133	6	79	16	1	1	2	140	160	4	114
August	2	2	1	8	231	244	29	70	3	1	..	7	102	113	2	62	4	3	..	4	98	109	4	71
September..	2	2	2	13	185	204	30	42	2	1	..	5	66	74	8	38	3	..	..	3	63	69	7	36
October.....	3	3	..	10	165	181	28	18	..	..	..	10	63	73	5	25	4	..	..	3	53	60	7	17
November..	1	1	..	6	160	168	29	18	5	1	1	3	54	64	4	9	1	..	..	2	49	52	7	17
December..	1	1	..	6	165	173	24	17	2	..	1	3	64	70	3	7	1	1	..	1	37	40	4	5
Grand Total.	35	23	16	72	1,942	2,088	309	276	53	17	3	60	666	799	56	278	48	8	2	30	639	727	55	307

Month.	From 6 to 7 Months.								From 7 to 8 Months.								From 8 to 9 Months.							
January.....	1	..	2	1	27	31	2	5	..	1	..	1	23	25	2	2	1	..	..	1	11	13	3	1
February...	1	..	..	1	23	25	4	2	3	..	..	1	40	44	11	2	1	..	1	..	28	30	2	..
March	3	..	1	1	38	43	6	3	..	..	..	1	37	38	7	1	1	..	..	1	29	31	5	2
April.......	..	1	1	1	32	35	6	2	2	..	1	..	33	36	4	2	2	..	1	..	37	40	5	7
May........	..	..	..	1	32	33	9	1	..	1	..	..	22	23	6	1	1	..	..	..	16	17	6	1
June	4	..	2	1	26	33	6	8	1	..	2	..	32	35	3	11	..	..	2	..	29	31	9	7
July........	3	..	2	..	126	131	14	91	1	..	1	2	98	102	1	83	1	..	1	..	104	106	15	71
August	5	..	1	3	100	109	11	71	1	..	1	1	74	77	3	55	3	..	..	..	87	90	5	61
September..	..	1	..	2	45	48	1	29	1	..	..	2	41	44	3	35	..	1	..	..	48	49	6	33
October.....	..	..	1	..	19	20	3	11	1	..	..	..	19	20	4	11	1	..	..	..	33	34	3	7
November..	..	..	2	1	10	13	2	..	1	..	..	2	11	14	4	2	..	..	..	..	20	20	2	2
December..	..	..	..	..	21	21	1	..	..	..	..	..	16	16	..	..	..	..	1	..	23	24	3	1
Grand Total.	17	2	12	12	499	542	65	223	11	2	5	10	446	474	48	205	11	1	6	2	465	485	64	193

Total Deaths of Children, one year

THE PRINCIPAL INFANTS' HOSPITALS, AND IN THE ENTIRE CITY.

From 3 to 4 Months.								From 4 to 5 Months.								From 5 to 6 Months.								
Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City	Diseases of Brain and Nervous System.	Diarrhœal and other Diseases of Bowels.	Total by Months.
5	..	..	3	34	42	6	2	1	1	1	..	45	48	8	2	..	..	1	1	28	30	6	2	401
1	2	..	..	45	48	5	3	2	1	1	1	27	32	5	6	4	1	..	..	32	37	4	2	350
2	..	1	3	20	26	1	2	5	..	1	..	31	37	7	4	6	..	2	2	18	28	4	1	297
10	..	1	4	37	52	1	8	5	..	2	..	29	36	6	6	4	..	2	1	35	42	7	2	335
3	..	..	5	37	45	9	10	2	..	..	2	31	35	3	7	3	1	..	1	27	32	5	4	341
10	..	..	4	34	48	4	16	6	..	..	2	33	41	6	14	8	1	1	..	34	44	5	12	365
10	1	1	1	127	140	3	100	7	3	..	1	127	138	4	106	2	..	2	3	111	118	3	94	930
3	2	1	5	87	98	4	60	4	..	..	1	81	86	6	55	2	..	..	..	90	92	5	68	742
3	..	..	1	49	53	4	39	3	..	..	1	38	42	2	20	..	..	..	..	46	46	5	29	488
..	..	..	..	38	38	3	10	1	1	..	2	25	29	2	13	2	..	..	1	18	21	..	14	402
..	..	..	1	47	48	4	15	..	..	..	2	30	32	2	7	1	..	..	..	20	21	4	6	385
..	1	..	1	37	39	4	6	..	..	1	2	24	27	2	3	..	..	..	1	28	29	3	1	378
47	6	4	28	592	677	48	271	36	6	6	14	521	583	53	243	32	3	8	10	497	540	51	235	5,414
From 9 to 10 Months.								From 10 to 11 Months.								From 11 to 12 Months.								
..	..	1	..	15	16	5	..	1	..	..	..	9	10	..	..	..	..	..	1	19	20	1	3	115
3	..	1	..	12	16	1	..	1	1	..	..	17	19	2	1	..	..	..	..	19	19	2	..	153
1	..	..	..	15	16	..	4	1	..	..	..	19	20	3	2	..	..	3	..	20	23	4	1	171
1	..	3	..	28	32	8	1	..	..	1	..	19	20	3	1	..	..	..	..	31	31	2	1	194
..	..	..	2	35	37	4	3	..	..	..	..	24	24	4	2	..	..	..	..	22	22	2	2	156
1	..	1	..	25	27	10	4	..	1	2	..	27	30	5	7	..	..	..	..	34	34	5	3	190
..	..	3	..	85	88	2	65	1	..	1	..	97	99	8	67	4	1	3	..	87	95	5	66	621
1	..	..	..	84	85	8	51	..	2	..	..	85	87	5	52	..	..	..	1	70	71	3	43	519
3	..	..	2	52	57	1	36	1	..	..	1	55	57	7	24	2	1	..	1	58	62	1	39	317
1	..	1	..	30	32	4	13	..	1	..	..	27	28	3	9	2	..	..	..	36	38	3	10	172
..	..	..	..	20	20	1	2	1	1	..	1	25	28	1	5	..	..	..	..	15	15	4	3	110
1	1	3	1	26	32	1	3	1	..	..	..	29	30	5	..	1	..	1	..	22	24	3	..	147
12	1	13	5	427	458	45	182	7	6	4	2	433	452	46	170	9	2	7	3	433	454	35	171	2,865

old and under, in above Hospitals, 729.

MORTALITY OF CHILDREN UNDER ONE YEAR OF AGE, IN THE YEAR

Month.	1 Month Old and Under.							
	Infants' Hospital, Randall's Island.	Ward's Island Hospital	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.
January	3	1	..	2	..	5	159	170
February	..	1	..	1	3	6	155	166
March	..	1	..	1	1	14	178	195
April	3	1	1	..	1	8	149	163
May	5	1	..	2	..	9	157	174
June	5	1	..	1	..	4	144	155
July	10	1	..	..	..	12	260	283
August	6	2	..	2	3	5	243	261
September ...	3	1	..	1	1	5	194	205
October	3	1	..	4	..	4	156	168
November ...	1	..	..	..	2	4	157	164
December ...	..	..	..	..	..	3	157	160
Grand Total..	39	11	1	14	11	79	2,109	2,264

Month.	From 1 to 2 Months.							
	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.
January	4	..	1	..	..	..	27	32
February	2	1	..	..	1	4	48	56
March	4	1	..	..	..	3	39	47
April	4	..	..	..	..	5	32	41
May	2	..	2	..	..	3	24	31
June	5	..	1	..	..	6	32	44
July	9	..	..	..	..	4	97	110
August	7	3	..	..	..	1	76	87
September ...	6	1	1	..	..	5	70	83
October	3	..	..	..	1	5	46	55
November ...	2	1	..	..	1	1	37	42
December ...	4	1	..	..	..	..	47	52
Grand Total..	52	8	5	..	3	37	575	680

Month.	From 2 to 3 Months.							
	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.
January	4	..	..	..	1	2	40	47
February	1	..	..	..	2	1	36	40
March	2	1	1	..	..	..	37	41
April	4	1	..	..	..	3	22	30
May	2	..	1	..	..	7	36	46
June	5	1	..	..	..	5	27	38
July	6	..	..	..	..	7	135	148
August	3	3	..	..	..	5	67	78
September ...	1	..	1	..	..	4	62	68
October	3	..	1	..	..	2	31	37
November ...	2	1	..	..	..	3	34	40
December ...	..	1	..	..	..	2	38	41
Grand Total..	33	8	4	..	3	41	565	654

Month.	From 6 to 7 Months.							
January	1	..	..	1	..	..	34	36
February	1	..	..	..	..	..	31	32
March	1	..	..	..	..	1	48	50
April	1	..	..	..	1	1	25	28
May	1	..	..	..	..	3	35	39
June	1	..	..	..	..	2	41	44
July	2	..	..	..	1	4	153	160
August	3	..	..	..	..	..	90	93
September....	3	..	..	..	..	..	50	53
October......	..	..	..	..	..	2	25	27
November....	1	..	..	..	..	..	28	29
December ...	1	..	..	..	..	1	29	31
Grand Total..	16	..	..	1	2	14	589	622

Month.	From 7 to 8 Months.							
January	1	1	..	..	..	..	27	29
February	..	..	..	..	..	1	23	24
March	..	..	..	..	..	..	26	36
April	..	..	..	..	..	1	34	35
May	4	..	..	..	1	2	30	37
June	4	..	..	..	1	2	41	48
July	1	1	..	..	2	1	137	142
August	2	..	..	..	1	..	70	73
September....	1	..	..	..	1	1	52	55
October......	1	..	..	..	..	1	14	16
November....	2	..	..	..	..	2	17	21
December ...	2	..	1	..	..	1	25	29
Grand Total..	18	2	1	..	6	12	496	545

Month.	From 8 to 9 Months.							
January	..	..	..	..	..	1	29	30
February	..	..	..	..	..	1	18	19
March	1	..	..	..	..	..	29	30
April	2	..	..	..	..	..	32	34
May	2	..	..	..	..	2	30	34
June	..	..	..	..	..	..	33	33
July	2	..	..	..	..	1	100	103
August	1	..	..	..	..	1	83	85
September....	..	..	..	..	..	..	53	53
October......	..	..	..	..	..	..	17	17
November....	1	..	..	..	..	1	12	14
December ...	3	..	..	..	..	1	17	21
Grand Total..	12	..	..	..	..	8	453	473

Total Deaths of Children under 1 year in above Hospitals, 706.

1875, IN THE INFANTS' HOSPITALS, AND IN THE ENTIRE CITY.

From 3 to 4 Months.								From 4 to 5 Months.								From 5 to 6 Months.								
Infants' Hospital, Randall's Island.	Ward's Island Hospital.	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Infants' Hospital, Randall's Island.	Ward's Island Hospital.	N. Y. Infant Asylum.	N. Y. Infant Asylum, 24 Clinton Place.	Nursery and Child's Hospital.	Foundling Hospital.	Elsewhere in the City.	Entire City.	Total by Months.
2	..	..	..	..	1	34	37	1	1	..	..	2	2	30	36	2	..	..	..	4	..	41	48	370
4	..	..	..	..	..	36	40	1	..	..	..	1	2	35	39	2	..	..	..	2	2	43	49	390
2	1	3	..	..	1	35	42	1	..	..	..	1	3	31	36	1	..	..	..	..	1	28	30	391
3	1	..	..	..	1	27	32	5	..	..	..	1	1	34	41	2	..	1	..	1	1	34	39	346
6	1	..	..	..	3	41	51	4	..	..	..	..	2	30	36	2	..	..	..	..	5	28	35	373
5	..	2	..	..	6	36	49	6	..	1	..	..	5	41	53	2	..	1	..	..	1	33	37	376
3	1	2	..	1	3	153	163	5	..	..	..	..	4	175	184	2	..	..	..	..	4	155	161	1,049
5	..	1	..	1	3	78	88	1	..	1	..	..	4	92	98	1	..	1	..	2	1	75	80	692
..	..	1	..	..	5	48	54	..	1	..	..	1	1	54	57	..	..	..	..	1	..	52	53	520
..	..	..	..	..	1	43	44	..	1	..	..	1	2	15	19	1	..	..	..	..	..	29	30	353
..	..	..	..	..	2	18	20	1	..	..	..	1	..	15	17	..	..	..	..	..	..	15	15	298
3	..	..	..	..	4	30	37	3	..	2	..	..	1	22	28	2	..	1	..	..	2	28	33	351
33	4	9	..	2	30	579	657	28	3	4	..	8	27	574	644	18	..	4	..	10	17	561	610	5,509
From 9 to 10 Months.								From 10 to 11 Months.								From 11 to 12 Months.								
..	..	..	..	..	..	24	24	1	2	..	..	..	..	17	20	1	..	1	..	..	..	27	29	168
..	..	..	..	..	..	19	19	..	..	..	..	..	..	20	20	..	..	..	..	..	..	35	35	149
1	..	..	..	..	..	28	29	1	..	..	..	..	..	25	26	1	..	..	..	..	..	34	35	206
..	..	..	..	..	2	27	29	..	..	2	..	..	1	23	26	..	1	..	..	..	..	15	16	168
1	..	..	..	..	..	20	21	..	..	..	..	..	..	27	27	1	..	..	..	..	2	20	23	181
2	..	..	..	..	1	34	37	..	..	..	..	1	3	20	24	..	..	..	..	..	2	24	26	212
2	..	2	..	..	1	107	112	1	..	..	..	..	1	99	101	2	..	..	..	..	1	72	75	693
3	..	..	..	1	5	62	71	1	..	1	..	2	1	98	103	1	..	..	..	..	..	70	71	496
..	..	..	..	1	2	63	66	1	1	..	..	..	..	57	59	..	..	..	..	..	..	50	50	336
..	..	..	..	..	..	30	30	..	..	..	..	..	..	25	25	..	..	..	..	..	1	24	25	140
1	..	..	..	..	1	16	18	2	..	..	..	..	..	20	22	..	..	..	..	..	..	24	24	128
..	2	..	..	..	..	21	23	1	..	1	..	..	1	17	20	..	..	1	..	..	..	29	30	154
10	2	2	..	2	12	451	479	8	3	4	..	3	7	448	473	6	1	2	..	..	6	424	439	3,031

Total Deaths of Children under 1 year in 1875, 8,540.

TABLE SHOWING THE MORTALITY BY THE PRINCIPAL ZYMOTIC DISEASES IN HOSPITALS, TENEMENT-HOUSES,

AND OTHER DWELLINGS, DURING THE YEAR 1874, IN NEW YORK CITY.

DISEASES.	Almshouse, Blackwell's Island.	Ambulance, on way to Hospital.	Bellevue Hospital.	Castle Garden Emigrant Depot.	City Prison (Tombs).	Centre Street Hospital.	Colored Orphan Asylum.	City Lunatic Asylum, B. I.	Charity Hospital, B. I.	Colored Home Hospital.	Convent of Sacred Heart.	Deaf and Dumb Asylum.	Essex Street Prison.	Epileptic and Paralytic Asylum.	Foundling Hospital.	Fever Hospital, B. I.	German Hospital.	Home of the Friendless.	Five Points House of Industry.	Inebriate Asylum, B. I.	Infants' Hospital, R. I.	Jefferson Market Prison.	Mt. Sinai Hospital.	N. Y. Infants' Asylum.	N. Y. Juvenile Asylum.	Nursery and Child's Hospital.	N. Y. City Asylum for the Insane.
Small-pox	..	1	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	2	..	..	15	..	..	..	..	..	29	..	..	..	..	..	..
Scarlatina	..	..	..	..	..	..	4	..	1	..	..	..	..	..	4	4	..	..	..	..	1	..	..	..	..	23	..
Diphtheria	1	..	2	..	..	..	2	..	..	..	1	5	..	..	17	4	..	..	..	..	1	..	1	..	1	..	..
Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	1	..	8	..	..	..	..	..	..
Whooping-cough	..	..	..	..	..	..	2	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	..	10	..
Cerebro-Spinal Meningitis	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	..	..	..	..	..
Typhus Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever	..	..	7	1	..	..	..	1	1	..	..	..	..	..	..	5	2	1	..	..	..	..	5	..	..	1	..
Remittent Fever	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Intermittent Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Erysipelas	..	..	10	..	..	..	..	1	11	..	..	..	..	..	3	..	..	..	..	.	..	..	..	..	..	3	2
Puerperal Fever	..	..	14	..	..	..	..	..	..	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœal Diseases	15	..	10	9	..	..	..	7	42	8	..	..	..	1	83	..	..	..	..	..	107	..	1	9	..	19	4
Intemperance	1	..	16	..	3	5	..	1	28	..	..	..	4	..	..	..	..	..	..	1	..	..	1	..	..	..	..
Delirium Tremens	..	..	16	1	2	1	..	1	11	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..
Total	17	1	85	11	5	6	8	11	94	11	1	8	4	1	137	15	2	1	4	1	147	1	9	9	1	58	6
Total from all Causes	96	9	879	32	14	103	12	1[illegible]3	668	130	1	11	6	17	295	27	63	1	8	1	409	5	56	29	1	142	126

TABLE SHOWING THE MORTALITY BY THE PRINCIPAL ZYMOTIC DISEASES IN HOSPITALS, TENEMENT-HOUSES, AND OTHER DWELLINGS, DURING THE YEAR 1874, IN NEW YORK CITY—(*Continued*).

DISEASES.	Prince Street Orphan Asylum.	Penitentiary and Workhouse, B. I.	Randall's Island Nursery.	Roosevelt Hospital.	Reception Hospital, 99th Street.	Roman Catholic Orphan Asylum.	St. Vincent's Hospital.	St. Francis' Hospital.	St. Joseph's Orphan Asylum.	Small-pox Hospital.	St. Luke's Hospital.	Soldier's Retreat, Ward's Island.	St. Elizabeth's Hospital.	Samaritan Home.	Trinity Infirmary.	Ward's Island.	Total in Public Institutions.	TENEMENT-HOUSES.			Total in Tenement-houses.	Private Residences, Poarding-houses, etc.	GRAND TOTAL.
																		First District.	Second District.	Third District.			
Small-pox	..	..	..	..	..	..	..	..	..	290	..	..	..	..	..	..	294	7	16	30	53	137	484
Measles	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	4	75	27	42	47	116	128	319
Scarlatina	..	..	1	1	..	1	..	2	..	..	..	..	..	..	..	3	22	89	184	188	461	396	879
Diphtheria	2	..	2	..	..	3	..	..	..	..	..	..	..	..	..	..	42	151	305	469	925	698	1,665
Croup	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	17	58	143	148	349	228	594
Whooping-cough	.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	24	36	81	141	258	207	489
Cerebro-Spinal Meningitis	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	3	13	11	9	42	62	83	158
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	1	3	9	14
Typhoid Fever	..	..	..	3	..	..	8	6	..	.	..	..	3	..	1	13	58	27	30	43	100	117	275
Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	6	8	39	53	91	148
Intermittent Fever	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	3	1	6	11	18	83	104
Erysipelas	..	1	1	..	..	..	..	2	..	..	..	..	..	..	..	3	37	15	29	35	79	53	169
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	20	9	14	14	37	30	87
Diarrhœal Diseases	..	1	2	..	1	..	2	8	2	..	1	1	..	2	1	31	367	339	739	887	1,965	1,237	3,569
Intemperance	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	62	9	4	7	20	70	152
Delirium Tremens	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	38	10	6	4	20	17	75
Total	2	2	8	5	2	5	13	19	3	291	2	2	3	2	2	63	1,078	796	1,617	2,106	4,519	3,584	9,181
Total from all Causes.	4	27	42	138	32	12	98	265	5	...	94	7	21	7	3	223	....	....	...	....	....	....	....

TABLE SHOWING THE MORTALITY BY THE PRINCIPAL ZYMOTIC DISEASES IN HOSPITALS AND OTHER DWELLINGS,

During the Year 1875, in New York City.

Diseases.	Almshouse, Blackwell's Island.	Ambulance on way to Hospital.	Bellevue Hospital.	Bloomingdale Asylum.	Castle Garden.	City Prison.	Chapin's Home.	Charity Hospital.	Colored Home Hospital.	Colored Orphan Asylum.	Children's Fold.	Deaf and Dumb Asylum.	Epileptic and Paralytic Hospital.	Foundling Asylum.	Fever Hospital, Blackwell's Island.	German Hospital.	House of Industry.	Home of the Friendless.	Incurable Hospital.	Infants' Hospital, Randall's Island.	New York Infant Asylum.	Lunatic Asylum.	Mt. Sinai Hospital.	Nursery and Child's Hospital.	New York City Asylum for the Insane.	Presbyterian Hospital.
Small-pox	..	1	11	..	..	..	..	..	..	..	..	1	..	....	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	6	..	..	..	..	..	..
Scarlatina	..	..	..	..	..	..	..	1	..	..	..	..	..	....	2	1	..	..	..	..	1	..	..	1	..	..
Diphtheria	..	..	5	..	..	..	..	..	..	1	..	1	..	16	4	..	1	..	..	1	1	..	1	10	..	..
Croup	..	..	..	..	..	..	..	1	..	..	..	..	..	5	..	..	..	1	..	3	1	..	..	3	..	..
Whooping-cough	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	5	..	..
Cerebro-Spinal Meningitis	..	..	7	..	1	..	..	1	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	1	..
Typhus Fever	..	..	..	..	4	..	..	1	..	..	..	..	..	....	2	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever	..	..	8	..	1	..	..	14	1	1	..	2	1	....	15	4	..	..	..	1	..	2	..	..	..	2
Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	2	..	..	..	..
Intermittent Fever	..	..	1	..	..	..	..	..	..	..	1	..	..	....	..	..	..	..	..	..	..	1	..	..	..	..
Erysipelas	..	..	2	..	..	..	1	4	1	..	..	..	..	...	..	1	..	..	..	..	2	..	1	2	..	..
Puerperal Fever	..	..	..	..	..	..	..	3	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœal Diseases	10	..	14	1	1	1	..	50	1	..	..	..	..	143	2	1	..	..	1	72	14	8	3	28	2	..
Intemperance	..	..	6	..	..	1	..	5	..	..	..	..	..	....	1	..	..	..	..	..	..	..	1	..	..	..
Delirium Tremens	1	..	13	..	1	1	..	6	..	..	..	..	..	....	..	1	..	..	..	..	..	1	1	..	..	..
Total	11	1	67	1	8	3	1	86	3	2	1	4	1	170	26	8	1	1	1	83	19	14	7	49	3	2

TABLE SHOWING THE MORTALITY BY THE PRINCIPAL ZYMOTIC DISEASES IN HOSPITALS AND OTHER DWELLINGS, DURING THE YEAR 1875, IN NEW YORK CITY—(*Continued*).

DISEASES.	Park Hospital.	Penitentiary, Blackwell's Island.	Protestant Half-Orphan Asylum.	Randall's Island Nursery.	Randall's Island Idiot Asylum.	Roman Catholic Orphan Asylum.	Roosevelt Hospital.	Riverside Hospital.	St. Elizabeth's Hospital.	Sheltering Arms.	St. Francis' Hospital.	St. Patrick's Female Orphan Asylum.	St. Luke's Hospital.	St. Vincent's Hospital.	St. Joseph's Orphan Asylum.	St. Joseph's Home for the Aged.	Soldiers' Retreat, Ward's Island.	Ward's Island.	Work-house, Blackwell's Island.	Nineteenth Precinct Station.	Ninety-ninth Street Reception Hospital.	Total in Public Institutions.	Total in Private Residences, Tenements, Boarding-houses, etc.	GRAND TOTAL.
Small-pox	..	..	..	..	..	..	..	739	..	..	..	..	..	..	1	..	..	..	..	..	4	757	523	1,280
Measles	..	..	..	3	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	9	158	167
Scarlatina	..	..	1	3	..	1	..	....	..	..	..	6	..	..	..	..	..	1	..	..	..	18	496	514
Diphtheria	..	..	..	3	..	2	..	....	..	..	..	1	..	1	..	..	1	..	..	..	..	49	2,280	2,329
Croup	..	..	..	7	..	..	..	....	..	..	..	..	..	..	..	..	..	1	..	..	..	22	736	758
Whooping-cough	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	11	396	407
Cerebro-Spinal Meningitis	..	..	..	..	..	..	1	....	..	..	3	..	..	..	..	..	..	1	..	..	..	15	131	146
Typhus Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	9	19	28
Typhoid Fever	..	1	..	1	2	2	4	....	..	..	11	1	6	4	..	..	..	10	..	..	1	95	252	347
Remittent Fever	..	..	..	..	..	..	..	....	..	..	1	..	..	..	..	1	..	..	..	..	..	4	129	133
Intermittent Fever	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	..	1	..	..	4	96	100
Erysipelas	..	..	..	..	..	1	..	....	..	..	3	..	..	..	..	..	..	1	..	..	..	19	151	170
Puerperal Fever	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..	..	..	1	..	..	..	4	55	59
Diarrhœal Diseases	..	..	..	..	..	..	3	....	1	..	4	..	1	6	2	1	..	19	2	..	..	391	3,347	3,738
Intemperance	1	..	..	..	..	..	1	....	..	..	2	..	..	2	..	..	..	1	1	1	..	23	81	104
Delirium Tremens	..	..	..	..	..	..	..	....	..	1	1	..	..	..	..	..	..	..	..	..	1	28	36	64
Total	1	1	1	17	2	6	9	740	1	1	25	8	7	13	3	2	1	36	4	1	6	1,458	8,886	10,344

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK

For the Twelve Months ending December 31, 1874.

Months.	Nativity.											
	NATIVE.			IRISH.			GERMAN.			OTHER FOREIGN COUNTRIES.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
January	48	62	110	61	59	120	29	17	46	17	10	27
February	66	46	112	68	64	132	43	19	62	16	16	32
March	54	58	112	71	67	138	34	24	58	21	21	42
April	65	73	138	70	80	150	42	17	59	23	16	39
May	62	56	118	57	64	121	42	25	67	19	21	40
June	47	61	108	42	54	96	26	14	40	16	14	30
July	47	62	109	45	56	101	28	16	44	17	12	29
August	57	59	116	54	69	123	38	19	57	16	12	28
September	52	59	111	55	69	124	23	18	41	18	14	32
October	59	71	130	60	74	134	36	24	60	18	10	28
November	65	56	121	68	53	121	44	17	61	27	9	36
December	59	66	125	89	98	187	46	30	76	36	7	43
Total	681	729	1,410	740	807	1,547	431	240	671	244	162	406

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK,

FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

MONTHS.	LENGTH OF RESIDENCE IN THE CITY.				COLOR.		TOTAL.		GRAND TOTAL.
	Less than 5 Years.	From 5 to 10 Years.	10 Years and Upwards.	Unknown.	White.	Colored.	Male.	Female.	
January	30	27	141	105	300	3	155	148	303
February	35	38	154	111	332	6	193	145	338
March	36	29	149	136	341	9	180	170	350
April	41	35	183	127	377	9	200	186	386
May	36	47	162	101	333	13	180	166	346
June	25	33	120	96	268	6	131	143	274
July	30	32	120	101	275	8	137	146	283
August	28	36	156	104	314	10	165	159	324
September	35	28	150	95	304	4	148	160	308
October	25	29	188	110	340	12	173	179	352
November	44	31	162	102	332	7	204	135	339
December	42	45	225	119	423	8	230	201	431
Total	407	410	1,910	1,307	3,939	95	2,096	1,938	4,034

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1874—(*Continued*).

Months.	Under 1 Year.		From 1 to 2 Years.		From 2 to 3 Years.		From 3 to 4 Years.		From 4 to 5 Years.		From 5 to 10 Years.		From 10 to 15 Years.		From 15 to 20 Years.		From 20 to 25 Years.		From 25 to 30 Years.		From 30 to 35 Years.		From 35 to 40 Years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	..	3	2	2	..	..	..	.	..	..	2	2	..	2	5	8	14	17	31	22	17	16	14	16
February	..	..	2	1	1	2	2	..	..	..	..	2	2	3	10	5	16	21	28	30	26	22	28	20
March	2	1	1	2	2	1	..	3	..	1	..	4	1	..	5	14	23	25	19	19	31	28	25	20
April	2	2	3	2	..	2	1	..	2	..	5	6	3	5	9	11	20	23	32	28	27	21	21	20
May	3	2	2	..	1	..	..	1	1	1	1	1	3	2	7	12	18	12	28	20	26	24	22	19
June	2	3	1	1	3	..	..	1	..	..	1	2	4	3	5	4	16	18	12	25	19	16	16	19
July	1	2	1	4	1	..	..	1	..	..	1	3	2	4	8	9	15	20	23	26	22	15	13	17
August	..	3	..	3	3	..	..	2	..	1	1	1	1	1	12	10	26	10	18	29	16	24	25	21
September	2	1	2	1	1	1	1	..	..	..	1	4	2	2	8	9	16	26	19	16	18	22	19	14
October	1	2	2	3	1	..	..	..	1	..	3	2	1	2	9	12	21	18	23	34	31	29	23	24
November	1	1	1	1	..	1	..	..	..	..	..	2	..	3	14	8	17	27	32	21	33	20	21	15
December	5	3	4	3	2	1	1	..	1	2	.	3	1	2	11	5	33	20	26	26	27	26	31	31
Total	19	23	21	23	15	8	5	8	5	5	15	32	20	29	103	107	235	237	291	296	293	263	258	236
	42		**44**		**23**		**13**		**10**		**47**		**49**		**210**		**272**		**587**		**556**		**494**	

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1874—(*Continued*).

Months.	From 40 to 45 Years.		From 45 to 50 Years.		From 50 to 55 Years.		From 55 to 60 Years.		From 60 to 65 Years.		From 65 to 70 Years.		From 70 to 75 Years.		From 75 to 80 Years.		From 80 to 85 Years.		From 85 to 90 Years.		From 90 to 100 Years.		Total by Sexes.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January	19	13	15	13	14	9	6	6	6	7	6	3	1	6	3	2	..	1	..	..	..	..	155	148	303
February	25	11	10	9	14	4	6	4	7	2	9	3	5	1	2	3	..	..	..	1	..	1	193	145	338
March	20	13	14	14	13	7	6	4	8	2	4	4	5	2	..	3	1	3	..	..	..	..	180	170	350
April	15	12	22	9	8	13	12	10	6	8	4	5	5	6	2	1	..	2	1	..	..	..	200	186	386
May	18	20	18	18	10	10	6	6	6	4	7	3	1	6	..	4	1	1	..	..	1	..	180	166	346
June	14	18	8	8	11	11	5	1	11	7	..	3	1	3	2	..	..	..	..	..	..	..	131	143	274
July	10	11	16	8	8	10	8	6	4	7	1	3	2	..	1	..	..	..	..	..	..	..	137	146	283
August	16	10	18	7	14	13	4	9	3	7	5	3	2	..	1	3	..	2	..	..	..	..	165	159	324
September	16	20	13	15	14	7	6	7	4	2	3	4	2	6	1	2	..	..	..	1	..	..	148	160	308
October	19	8	7	20	13	10	8	8	5	4	1	..	1	1	3	..	..	1	..	..	..	1	173	179	352
November	22	9	20	6	18	6	4	3	15	4	3	4	..	3	3	1	..	..	..	..	..	..	204	135	339
December	23	26	14	8	19	10	13	15	7	9	5	3	3	1	4	3	..	1	..	2	..	1	230	201	431
Total	217	171	175	135	156	110	84	79	82	63	48	38	28	35	22	22	2	11	1	4	1	3	2,096	1,938	4,034
	388		**310**		**266**		**163**		**145**		**86**		**63**		**44**		**13**		**5**		**4**		**4,034**		....

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK,

FOR THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

WARDS.	Under 1 Year.	From 1 to 2 Years.	From 2 to 3 Years.	From 3 to 4 Years.	From 4 to 5 Years.	From 5 to 10 Years.	From 10 to 15 Years.	From 15 to 20 Years.	From 20 to 25 Years.	From 25 to 30 Years.	From 30 to 35 Years.	From 35 to 40 Years.	From 40 to 45 Years.	From 45 to 50 Years.	From 50 to 55 Years.	From 55 to 60 Years.	From 60 to 65 Years.	From 65 to 70 Years.	From 70 to 75 Years.	From 75 to 80 Years.	From 80 to 85 Years.	From 85 to 90 Years.	From 90 to 100 Years.	TOTAL.
First............	1	..	..	..	..	1	..	5	5	2	9	6	4	4	3	4	5	1	2	..	2	..	..	54
Second.........	..	..	..	..	..	..	..	1	..	1	3	1	..	1	..	..	..	..	..	1	..	..	..	8
Third..........	..	..	..	..	..	..	..	1	..	1	..	1	..	3	..	..	2	..	..	..	..	1	..	9
Fourth..........	..	..	2	..	..	..	1	5	9	16	19	12	14	12	3	4	4	1	1	..	..	..	..	103
Fifth...........	1	1	..	2	..	..	..	1	8	8	9	9	5	5	4	1	3	..	..	..	..	..	..	57
Sixth...........	..	3	1	1	..	7	4	5	9	8	12	12	7	10	9	6	4	5	..	3	1	..	..	107
Seventh.........	2	3	..	2	..	2	3	6	19	25	26	23	12	17	13	9	3	3	6	1	1	..	..	176
Eighth..........	3	3	2	..	..	5	3	5	13	25	16	23	14	10	5	6	3	3	3	4	..	1	..	147
Ninth...........	..	..	2	..	1	1	..	19	19	33	25	30	12	17	14	9	6	3	5	2	1	..	..	191
Tenth..........	3	..	1	1	2	..	..	8	12	18	16	15	15	13	4	4	3	1	1	..	..	..	..	117
Eleventh.......	..	2	2	1	..	1	4	16	39	60	56	40	26	24	20	13	10	9	3	1	..	..	..	327
Twelfth.........	4	4	1	1	1	4	7	18	42	43	33	35	28	14	20	6	5	3	2	1	..	..	..	272
Thirteenth......	..	1	1	1	..	..	1	8	19	13	13	15	12	10	3	8	5	2	1	..	1	..	..	114
Fourteenth......	3	..	1	1	1	2	3	9	10	10	17	16	10	12	7	6	6	4	..	..	..	..	..	118
Fifteenth.......	..	1	1	..	..	..	1	1	8	9	10	10	11	9	1	2	2	2	2	2	..	..	..	72
Sixteenth.......	..	3	..	..	..	1	3	12	14	25	19	10	10	8	9	3	4	5	3	4	1	1	2	137
Seventeenth.....	4	4	..	1	..	3	3	18	48	32	38	31	33	20	25	16	9	2	2	3	..	..	..	302
Eighteenth......	2	..	..	..	..	2	1	18	23	30	21	30	16	14	12	9	8	1	2	1	1	..	..	191
Nineteenth.....	5	9	3	1	2	5	4	17	73	106	85	68	64	36	39	15	32	25	14	8	2	2	1	616
Twentieth.......	5	5	2	1	1	5	3	12	38	29	26	24	27	26	20	13	6	8	1	5	1	..	..	258
Twenty-first....	5	3	1	..	1	5	1	8	14	43	45	36	34	16	25	13	10	5	3	3	..	..	..	271
Twenty-second..	3	2	3	..	1	2	5	14	32	40	48	36	27	15	27	15	12	3	9	4	2	..	..	300
Twenty-third...	1	..	..	..	..	..	..	1	9	8	6	6	6	2	3	1	2	..	1	..	..	..	..	46
Twenty-fourth..	..	..	..	..	..	1	2	2	9	2	4	5	1	2	..	..	1	..	2	1	..	..	1	33
Total......	42	44	23	13	10	47	49	210	472	587	556	494	388	310	266	163	145	86	63	44	13	5	4	4,034

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS, ETC.

For the Twelve Months ending December 31, 1874—(*Continued*).

Occupation.	No.	Occupation.	No.	Occupation.	No.
Actors	3	Drover	1	Peddlers	10
Agents	13	Druggists	7	Physicians	5
Artists (including Sculptors, Photographers, etc.)	4	Dyers and Scourers	2	Plasterer	1
Bakers	27	Editors	2	Plumbers	6
Barbers	17	Engineers	9	Police and Watchmen	4
Bartenders (and Saloon-keepers)	33	Farmers and Gardeners	10	Porters	18
Billposter	1	Firemen	3	Printers	27
Blacksmiths	18	Fish and Oystermen	5	Restaurant Keeper	1
Bookbinders	9	Gasfitters	3	Seamen and Watermen	20
Brassfinishers	4	Gilders, Silverplaters, etc.	6	Ship Carpenters	2
Brewers	6	Glazier	1	Shoemakers	29
Brokers	5	Grocers	16	Sisters of Charity	5
Builders and Contractors	3	Harnessmakers	3	Soldier	1
Butchers	21	Hatters	5	Stablemen	2
Capmakers	6	Hostlers	3	Stevedores	3
Carmen (including Coachmen, Drivers, etc.)	68	Instrument-maker	1	Students	2
Carpenters	79	Janitors	3	Teachers, Male	4
Carriagemakers	2	Junkmen	4	Teachers, Female	10
Carvers	7	Jewelers	13	Telegraph Operator	1
Cigarmakers	29	Laborers	262	Tinsmiths	11
Clergymen	2	Laundresses	8	Tailors	52
Clerks (including Bookkeepers, Salesmen, etc.)	120	Lawyers	6	Trunkmakers	3
Conductors and Railroad Men	8	Letter-carriers	1	Turners	4
Confectioners	5	Lithographers and Engravers	6	Upholsterers	8
Cooks	18	Machinists	38	Undertaker	1
Coopers	12	Marble Polishers	4	U. S. Army Officer	1
Curriers	6	Masons, Stonecutters, etc.	37	Waiters	23
Cutler	1	Merchants	46	Watchmakers	3
Dentist	1	Millers	2	Weaver	1
Doorman	1	Miner	1	Whitewashers	7
Domestics	175	Moulder	1	Wigmaker	1
Dressmakers and Seamstresses	49	Musicians	12	Children, and no occupation given	2,445
		Newsdealers	4		
		Nurses	2		
		Painters	41		
		Paper Stainers	2	Total	4,034

Location by Wards.	Public Institutions.	Number of Deaths.	Location by Wards.	Public Institutions.	Number of Deaths.
I.	Castle Garden (Emigrant Depot)	1	XIX.	Lunatic Asylum, Blackwell's Island	28
V.	Trinity Infirmary	1	"	Penitentiary Hospital, Blackwell's Island	1
VI.	Centre Street (Reception Hospital)	4	"	Fever Hospital, Blackwell's Island	1
"	City Prison (Tombs)	1	"	Epileptic and Paralytic Hospital, Blackwell's Island	1
"	Five Points House of Industry	1	"	Workhouse, Blackwell's Island	2
VIII.	Eighth Precinct Police Station	2	"	Foundling Hospital	2
IX.	St. Vincent's Hospital	43	"	Home for the Aged	3
XI.	St. Franciscus' Hospital	130	"	Presbyterian Hospital	9
XII.	Ward's Island (Emigrant Refuge)	50	"	Colored Home Hospital	33
"	Soldiers' Retreat, Ward's Island	6	"	German Hospital	24
"	Randall's Island Nursery Hospital	2	"	Mt. Sinai Hospital	12
"	Randall's Island Idiot Hospital	3	"	St. Luke's Hospital	28
"	Infants' Hospital	5	"	Roman Catholic Orphan Asylum	3
"	N. Y. City Asylum for the Insane	60	"	Nursery and Child's Hospital	6
"	Reception Hospital, Ninety-ninth street	1	"	St. Joseph's Industrial School	1
"	N. Y. Juvenile Asylum	1	"	Nineteenth Precinct Police Station	1
"	Colored Orphan Asylum	3	XX.	St. Elizabeth's Hospital	6
"	House of Good Shepherd	4	"	St. Mary's Hospital	1
"	Leake and Watt's Orphan Asylum	1	XXI.	Bellevue Hospital	116
XIV.	Prince Street Roman Catholic Orphan Asylum	1	XXII.	Roosevelt Hospital	52
XVI.	St. Joseph's Home for the Aged	6	"	Twenty-second Police Station	1
"	Sixteenth Precinct Police Station	2	XXIV.	Home for Incurables	1
XVII.	N. Y. Eye Infirmary	1	XXIII.	House of Rest for Consumptives	7
XVIII.	Home for Respectable and Indigent Females	1	XXIV.	Mt. St. Vincent's Academy	1
XIX.	Charity Hospital, Blackwell's Island	189			
"	Almshouse, Blackwell's Island	25		Total	884

ABSTRACT OF THE RECORD OF DEATHS, BY PHTHISIS PULMONALIS, IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1875.

Showing Nativity, Color, Age, Sex, Class of Occupation, Length of Residence in the City; also the Months and Wards in which these Deaths occurred; also the Number of such Deaths in Various Public Institutions.

Months.	Nativity.												Length of Residence in the City.				Color.		Total.		Grand Total.
	NATIVE.			IRISH.			GERMAN.			OTHER FOREIGN COUNTRIES.											
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Less than **5** Years.	From **5** to **10** Years.	**10** Years and Upwards.	Unknown.	White.	Colored.	Male.	Female.	
January	75	61	136	81	66	147	38	20	58	16	15	31	33	45	198	96	359	13	210	162	372
February	69	64	133	75	72	147	35	17	52	26	13	39	31	36	189	115	369	2	205	166	371
March	69	71	140	79	57	136	46	33	79	28	19	47	40	37	185	140	397	5	222	180	402
Quarter ending March 27	213	196	409	235	195	430	119	70	189	70	47	117	104	118	572	351	1,125	20	637	508	1,145
April	77	75	152	69	78	147	41	21	62	21	7	28	35	27	171	156	371	18	208	181	389
May	80	60	140	72	69	141	40	32	72	21	18	39	29	31	173	160	377	15	213	179	392
June	52	51	103	39	46	85	31	17	48	19	6	25	22	21	111	107	255	6	141	120	261
Quarter ending June 26	209	186	395	180	193	373	112	70	182	61	31	92	86	79	454	423	1,003	39	562	480	1,042

ABSTRACT OF THE RECORD OF DEATHS, BY PHTHISIS PULMONALIS, IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1875—(*Continued*).

Showing Nativity, Color, Age, Sex, Class of Occupation, Length of Residence in the City; also the Months and Wards in which these Deaths occurred; also the Number of such Deaths in Various Public Institutions.

Months.	Nativity.												Length of Residence in the City.				Color.		Total.		Grand Total.
	native.			irish.			german.			other foreign countries.											
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Less than 5 Years.	From 5 to 10 Years.	10 Years and Upwards.	Unknown.	White.	Colored.	Male.	Female.	
July	56	68	124	71	73	144	34	24	58	25	10	35	37	30	162	132	358	3	186	175	361
August	48	58	106	42	45	87	25	19	44	21	13	34	32	27	169	43	264	7	136	135	271
September	66	63	129	44	50	94	23	13	36	13	13	26	30	33	170	52	278	7	146	139	285
Quarter ending Sept. 25	170	189	359	157	168	325	82	56	138	59	36	95	99	90	501	227	900	17	468	449	917
October	68	80	148	56	82	138	39	17	56	23	26	49	31	38	245	77	387	4	186	205	391
November	57	68	125	42	51	93	32	18	50	14	8	22	22	32	160	76	287	3	145	145	290
December	77	72	149	62	73	135	46	24	70	17	10	33	36	34	242	75	370	17	202	185	387
Quarter ending Dec. 31	202	220	422	160	206	366	117	59	176	54	50	104	89	104	647	228	1,044	24	533	535	1,068
Total, 1875	794	791	1,585	732	762	1,494	430	255	685	244	164	408	378	391	2,174	1,229	4,072	100	2,200	1,972	4,172

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK, IN 1875.

Months.	Under 1 Year.		From 1 to 2 Years.		From 2 to 3 Years.		From 3 to 4 Years.		From 4 to 5 Years.		From 5 to 10 Years.		From 10 to 15 Years.		From 15 to 20 Years.		From 20 to 25 Years.		From 25 to 30 Years.		From 30 to 35 Years.		From 35 to 40 Years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	4	2	1	1	1	1	..	..	..	1	2	2	3	1	9	11	28	23	32	21	30	18	27	20
February	4	3	..	2	3	1	1	..	1	..	1	1	3	3	5	13	22	18	31	30	24	23	25	15
March	1	2	3	1	2	1	2	1	..	..	1	1	3	7	6	18	26	19	23	30	32	20	31	17
Quarter ending March 27	9	7	4	4	6	3	3	1	1	1	4	4	9	11	20	42	76	60	86	81	86	61	83	52
April	..	2	2	4	2	..	3	..	..	4	1	3	1	4	13	14	26	23	22	23	33	17	23	18
May	1	4	1	4	2	..	1	1	2	1	4	2	3	2	9	9	22	28	28	31	24	26	36	20
June	3	..	1	..	..	..	..	..	1	2	1	..	3	9	7	6	20	22	14	12	15	15	15	15
Quarter ending June 26	4	6	4	8	4	..	4	1	3	7	6	5	7	15	29	29	68	73	64	66	72	58	74	53
July	2	4	2	1	..	1	2	2	1	1	1	3	1	2	9	18	25	28	33	19	31	18	23	17
August	1	1	2	1	..	..	..	1	2	..	3	2	..	4	7	8	20	21	9	25	24	24	22	16
September	2	2	1	1	..	..	..	..	1	1	2	2	1	2	10	12	15	31	15	21	21	11	19	13
Quarter ending Sept. 25	5	7	5	3	..	1	2	3	4	2	6	7	2	8	26	38	60	80	57	65	76	53	64	46
October	1	4	1	4	1	..	..	..	1	..	1	1	2	3	13	10	20	30	21	30	21	32	25	20
November	1	1	2	1	..	2	..	1	..	1	4	3	4	2	9	19	16	25	19	20	18	17	20	14
December	2	3	6	1	2	1	1	1	..	..	2	4	2	2	9	18	22	15	27	31	29	22	21	19
Quarter ending Dec. 31	4	8	9	6	3	3	1	2	1	1	7	8	8	7	31	47	58	70	67	81	68	71	66	53
Total	22	28	22	21	13	7	10	7	9	11	23	24	26	41	106	156	262	283	274	293	302	243	287	204
Total both Sexes	50		43		20		17		20		47		67		262		545		567		545		491	

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK, IN 1875—(*Continued*).

MONTHS.	FROM 40 TO 45 YEARS.		FROM 45 TO 50 YEARS.		FROM 50 TO 55 YEARS.		FROM 55 TO 60 YEARS.		FROM 60 TO 65 YEARS.		FROM 65 TO 70 YEARS.		FROM 70 TO 75 YEARS.		FROM 75 TO 80 YEARS.		FROM 80 TO 85 YEARS.		FROM 85 TO 90 YEARS.		FROM 90 TO 95 YEARS.		TOTAL BY SEXES.		GRAND TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January	16	12	15	16	11	7	11	3	9	11	7	4	1	3	2	3	..	1	1	1	..	..	210	162	372
February	22	13	21	14	11	10	12	7	6	3	5	4	6	3	2	2	..	..	..	..	..	1	205	166	371
March	29	17	15	15	18	12	8	5	9	5	5	3	4	2	3	2	1	..	..	2	..	..	222	180	402
Quarter ending March 27	67	42	51	45	40	29	31	15	24	19	17	11	11	8	7	7	1	1	1	3	..	1	637	508	1,145
April	21	20	21	9	17	11	8	5	6	6	5	8	1	5	1	3	2	1	..	..	..	1	208	181	389
May	19	21	25	8	11	5	13	4	2	4	5	4	2	3	1	..	..	2	1	..	1	..	213	179	392
June	18	14	11	6	12	7	10	3	7	3	2	3	..	3	1	..	..	..	..	..	..	..	141	120	261
Quarter ending June 26	58	55	57	23	40	23	31	12	15	13	12	15	3	11	3	3	2	3	1	..	1	1	562	480	1,042
July	14	14	7	13	11	11	7	5	4	6	8	5	2	3	2	3	..	1	1	..	..	..	186	175	361
August	12	10	9	6	7	5	8	5	5	3	2	3	2	..	1	..	..	..	..	..	..	..	136	135	271
September	14	14	9	12	13	6	9	4	5	1	5	3	2	2	1	1	1	..	..	..	..	..	146	139	285
Quarter ending Sept. 25	40	38	25	31	31	22	24	14	14	10	15	11	6	5	4	4	1	1	1	..	..	..	468	449	917
October	21	23	19	15	12	10	5	9	12	4	3	6	6	1	1	..	..	2	..	1	..	..	186	205	391
November	12	14	12	8	7	3	7	4	5	2	1	6	4	2	2	..	1	..	1	..	..	..	145	145	290
December	23	20	20	13	10	5	11	12	12	4	1	7	2	3	..	3	..	1	..	..	..	..	202	185	387
Quarter ending Dec. 31	56	57	51	36	29	18	23	25	29	10	5	19	12	6	3	3	1	3	1	1	..	..	533	535	1,068
Total	221	192	184	135	140	92	109	66	82	52	49	56	32	30	17	17	5	8	4	4	1	2	2,200	1,972	4,172
Total both Sexes	413		319		232		175		134		105		62		34		13		8		3		4,172		

·ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK, IN 1875.

Occupation.	Number.	Occupation.	Number.	Occupation.	Number.
Actors	3	Expressmen	2	Porters	16
Agents	3	Farmers and Gardeners	17	Police and Watchmen	19
Artificial Flower Makers	5	Firemen	2	Plumbers and Gas-fitters	17
Artists (including Sculptors, Photographers, etc.)	4	Fish and Oystermen	3	Physicans	3
Authors (Literary Men and Translators)	6	Furriers	3	Riggers, Sailmakers, Caulkers	3
Bakers	21	Glass-blowers and Glass-cutters	3	Roofers	4
Barbers	19	Gilders, Silver-platers and Gold-beaters	11	Stablemen	5
Bartenders and Saloon Keepers	49	Grocers	10	Seamen and Watermen	13
Bookbinders	13	Harness-makers	2	Sewing-machine Operators	2
Brewers	4	Hatters	7	Shipwrights	3
Brokers	3	Hair-dressers	3	Sisters of Charity	3
Brushmakers	5	Janitors	2	Shoemakers	36
Builders and Contractors	3	Jewelers	5	Soldiers	5
Butchers	18	Laborers	299	Tailors	63
Carmen (including Coachmen, Drivers, etc.)	64	Lawyers	4	Teachers (male)	4
Carpenters (Cabinet and Piano Makers)	78	Laundresses	8	Teachers (female)	8
Carriage-makers	5	Lithographers, Engravers, Electrotypers, etc	11	Telegraph Operator	1
Carvers (wood)	7	Machinists, Engineers, Blacksmiths, Tinsmiths, etc.	81	Turners	5
Clergymen	3	Marble Polishers and Cutters	11	U. S. Army Officers	2
Clerks (including Book-keepers, Salesmen, etc.)	145	Masons, Stone-cutters, Bricklayers, etc.	38	Upholsterers	6
Cigar-makers	51	Merchants, Manufacturers, etc	68	Umbrella-makers	3
Compositors	5	Miller	1	Venders	7
Conductors and Railroad Men	9	Moulders	6	Waiters	32
Confectioners	5	Musicians	7	Waitresses	2
Cooks	14	Nurses	3	Washerwomen	7
Coopers	6	Optician	1	Watchmakers	3
Dress-makers and Seamstresses	84	Paper-hangers	2	Weavers	10
Deputy Sheriff	1	Painters	43	Other Occupations	123
Domestics (not specified)	191	Peddlers	16	Children and no occupations given	2,245
Druggists	3	Printers	26	Total	4,172

ABSTRACT OF THE RECORD OF DEATHS BY PHTHISIS PULMONALIS IN THE CITY OF NEW YORK, IN 1875.

Location by Wards.	Public Institutions.	Number of Deaths.	Location by Wards.	Public Institutions.	Number of Deaths.
I.	Castle Garden Emigrant Depot	1	XIX.	Fever Hospital, Blackwell's Island	3
IV.	Fourth Precinct Station	1	"	Charity Hospital, Blackwell's Island	193
V.	Trinity Infirmary	5	"	Almshouse, Blackwell's Island	10
VI.	Park Hospital	2	"	Lunatic Asylum, Blackwell's Island	31
"	Home of Industry	3	"	Penitentiary Hospital, Blackwell's Island	2
"	City Prison	1	"	Workhouse, Blackwell's Island	2
VIII.	Eighth Precinct Station	1	"	Incurable Hospital, Blackwell's Island	2
IX	St. Vincent's Hospital	52	"	German Hospital	25
XI.	St. Franciscus' Hospital	116	"	Colored Home Hospital	54
XII.	Sheltering Arms	1	"	Mt. Sinai Hospital	12
"	Ninety-ninth Street, Reception Hospital	2	"	Presbyterian Hospital	8
"	Colored Orphan Asylum	3	"	St. Luke's Hospital	35
"	Homœopathic Hospital	9	"	St. Patrick's Orphan Asylum	1
"	Ward's Island Emigrant Refuge	45	"	Hospital for Ruptured and Crippled	2
"	Soldiers' Retreat, Ward's Island	3	"	Nursery and Child's Hospital	2
"	Randall's Island Nursery Hospital	3	"	Roman Catholic Orphan Asylum	1
"	Randall's Island Idiot Hospital	1	XX.	St. Elizabeth's Hospital	5
"	N. Y. City Asylum for the Insane	56	XXI.	Bellevue Hospital	164
"	House of Good Shepherd.	13	XXII.	Roosevelt Hospital	50
"	Infants' Hospital	17	XXIII.	House of Rest for Consumptives	13
"	St. Joseph's Asylum	2	"	Home for Incurables	3
"	Bloomingdale Lunatic Asylum	2	XXIV.	Catholic Protectory	1
XVI.	St. Joseph's Home for Aged	6			
XVIII.	Home for Respectable Aged, and Indigent Females	1		Total	965

ABSTRACT OF MORTALITY FROM PHTHISIS PULMONALIS IN THE CITY OF NEW YORK, IN 1875.

WARDS.	Under 1 Year.	From 1 to 2 Years.	From 2 to 3 Years.	From 3 to 4 Years.	From 4 to 5 Years.	From 5 to 10 Years.	From 10 to 15 Years.	From 15 to 20 Years.	From 20 to 25 Years.	From 25 to 30 Years.	From 30 to 35 Years.	From 35 to 40 Years.	From 40 to 45 Years.	From 45 to 50 Years.	From 50 to 55 Years.	From 55 to 60 Years.	From 60 to 65 Years.	From 65 to 70 Years.	From 70 to 75 Years.	From 75 to 80 Years.	From 80 to 85 Years.	From 85 to 90 Years.	From 90 to 95 Years.	TOTAL.
First	3	..	..	..	1	2	3	5	6	6	8	5	8	2	4	2	4	2	2	..	1	1	..	65*
Second	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	2	..	..	..	..	..	5
Third	..	..	..	..	..	..	..	..	1	..	..	4	..	..	2	...	..	..	..	..	..	..	..	7
Fourth	..	1	1	..	..	1	3	5	14	7	10	22	8	12	2	2	4	2	1	1	..	..	1	97†
Fifth	..	..	..	..	1	..	..	1	8	7	9	9	3	6	1	5	3	..	..	1	..	..	..	54‡
Sixth	..	..	..	1	1	3	6	7	11	8	17	10	17	9	9	..	8	4	1	1	1	..	..	114§
Seventh	5	3	1	..	..	1	..	11	34	16	22	17	14	13	12	7	5	4	5	2	2	..	..	174
Eighth	2	4	..	3	..	2	..	11	16	21	17	17	8	12	9	7	2	2	2	2	1	..	..	138‖
Ninth	3	4	1	1	..	1	2	15	42	27	26	25	17	13	6	8	4	8	5	..	2	..	..	210¶
Tenth	5	3	3	..	1	2	3	11	24	19	17	21	9	12	13	3	3	4	1	1	1	1	..	157
Eleventh	2	3	1	1	..	..	5	18	39	47	34	32	33	27	18	13	7	12	..	1	..	..	..	293**
Twelfth	7	5	7	3	3	8	8	14	35	41	46	29	23	14	19	10	6	8	3	2	..	..	..	291††
Thirteenth	..	3	..	..	2	1	3	9	9	9	12	7	11	10	4	8	7	3	2	1	..	..	..	101
Fourteenth	2	2	..	1	..	4	..	9	16	17	19	19	11	6	4	3	9	6	1	1	..	..	..	130
Fifteenth	..	1	1	..	..	..	..	5	4	14	13	11	5	4	..	3	3	3	1	..	..	2	..	70
Sixteenth	3	1	..	1	..	1	..	13	21	20	12	12	12	16	5	8	7	9	3	3	..	..	1	148‡‡
Seventeenth	2	3	..	2	1	6	1	24	39	37	34	32	24	26	26	12	7	6	2	2	..	..	..	286
Eighteenth	2	1	1	..	2	2	8	11	23	16	27	24	23	13	15	10	8	1	..	2	2	..	..	191§§
Nineteenth	5	4	1	3	1	2	6	27	82	108	89	80	77	52	29	25	16	13	15	8	..	2	..	645‖‖
Twentieth	6	..	..	1	3	3	6	20	29	43	38	29	28	17	16	14	5	5	7	2	1	..	..	273¶¶
Twenty-first	3	2	3	..	..	3	5	9	45	44	48	47	40	19	18	13	9	5	2	1	..	1	1	318***
Twenty-second	..	3	..	..	4	2	7	27	35	42	42	33	31	23	11	18	14	3	8	2	2	..	..	307†††
Twenty-third	..	..	...	..	..	2	..	3	5	7	4	1	8	8	6	3	2	1	..	1	..	1	..	52‡‡‡
Twenty-fourth	..	..	..	..	..	1	1	6	7	11	1	4	3	4	3	1	1	2	1	..	..	..	..	46§§§
Totals	50	43	20	17	20	47	67	262	545	567	545	491	413	319	232	175	134	105	62	34	13	8	3	4,172

* First Ward, including 1 in Hospital.
† Fourth " " 1 in Fourth Precinct Station.
‡ Fifth " " 5 in Hospitals.
§ Sixth " " 6 "
‖ Eighth " " 1 in Eighth Precinct Station.
¶ Ninth " " 52 in Hospitals

** Eleventh Ward, including 116 in Hospitals.
†† Twelfth " " 157 "
‡‡ Sixteenth " " 6 "
§§ Eighteenth " " 1 "
‖‖ Nineteenth " " 383 "
¶¶ Twentieth " " 5 "

*** Twenty-first Ward, including 164 in Hospitals.
††† Twenty-second " " 50 "
‡‡‡ Twenty-third " " 16 "
§§§ Twenty-fourth " " 1 "

Total.................. 965

SUMMARY SHOWING THE PERCENTAGE OF MORTALITY FROM PHTHISIS AT THE DIFFERENT PERIODS OF LIFE,

IN NEW YORK IN 1875.

AGES.	TOTAL UNDER 5 YEARS.		5-10		10-15		15-20		20-25		25-30		30-35		35-40		40-45		45-50		50-55	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Deaths by Phthisis Pulmonalis at the Different Ages............	76	74	23	24	26	41	106	156	262	283	274	293	302	243	287	204	221	192	184	135	140	92
Deaths by all Causes....	7,793	7,055	700	754	216	233	319	362	597	648	679	729	764	662	820	648	762	585	720	505	607	412
Percentage of Deaths by Phthisis on Total Mortality...........	.98	1.05	3.29	3.18	12.04	17.60	33.23	43.09	43.89	43.67	40.35	40.19	39.53	36.71	35.00	31.48	29.00	32.82	25.56	26.73	23.06	22.33

AGES.	55-60		60-65		65-70		70-75		75-80		80-85		85-90		90-95		95-100		100 and Upwards.		TOTAL BY SEXES.		TOTAL BOTH SEXES.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Deaths by Phthisis Pulmonalis at the Different Ages............	109	66	82	52	49	56	32	30	17	17	5	8	4	4	1	2	..	..	..	..	2,200	1,972	4,172
Deaths by all Causes....	498	390	455	353	328	385	285	349	222	312	115	177	69	109	18	29	10	19	2	14	15,979	14,730	30,709
Percentage of Deaths by Phthisis on Total Mortality...........	21.89	16.92	18.02	14.73	14.94	14.55	11.22	8.60	7.66	5.45	4.35	4.52	5.79	3.67	5.56	6.89	..	..	..	..	13.77	13.39	13.59

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE

In the Twelve Months ending December 31, 1874.

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Accidents—																											
Burns by clothes taking fire from a Stove	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burns by bed taking fire while Smoking	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Drowning	6	4	2	..	..	2	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Effects of Immersion	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall down Area	2	..	1	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall on Sidewalk	4	..	3	..	1	2	1	..	..	..	..	..	1	..	..	..	.	..	..	..	..	..	..	..	..	..	..
Fall from Ladder	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall down Steps	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall across a piece of Timber	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall in Hallway	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Falls (not specified)	5	2	1	..	2	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall from Window	4	1	2	1	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall from Roof	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall in Alleyway	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25-30		30-35		35-40		40-45		45-50		50-55		55-60		60-65		65-70		70-75		75-80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Accidents—																						
Burns by clothes taking fire from a Stove	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burns by bed taking fire while Smoking	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Drowning	2	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Effects of Immersion	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall down Area	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Fall on Sidewalk	..	..	2	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Fall from Ladder	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Fall down Steps	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall across a Piece of Timber	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall in Hallway	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Falls (not specified)	1	..	..	..	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
Fall from Window	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Fall from Roof	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fall in Alleyway	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Accidents—																											
Fall down Stairs	6	..	4	1	1	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fractures and Contusions	5	2	1	..	2	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Knocked down by a Truck	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lodgment of a Piece of Meat in Larynx	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poisoning by Opium	2	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anæmia	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Angina Pectoris	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy	10	2	4	4	..	2	5	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Ascites	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Asthma	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Bright's Disease	38	12	17	3	6	9	16	6	..	..	..	1	1	..	1	1	..	..	1	..	2	..	..	..	..	1	..
" Cirrhosis of Liver	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Congestion of Brain	2	..	2	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Dropsy	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Accidents—																						
Fall down Stairs	..	..	..	1	..	..	..	..	1	1	2	..	1	..	..	..	..	..	..	..	..	..
Fractures and Contusions	..	..	3	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Knocked down by a Truck	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lodgment of a Piece of Meat in Larynx	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poisoning by Opium	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Anæmia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Angina Pectoris	..	..	..	..	..	..	1	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy	..	..	1	..	..	1	1	..	..	2	2	..	..	..	..	1	..	..	1	1	..	..
Ascites	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Asthma	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Bright's Disease	5	3	5	1	4	2	1	1	2	1	5	1	..	1	1	..	1	..	1	..	..	2
" Cirrhosis of Liver	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Congestion of Brain	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Dropsy	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																	Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Bright's Disease—Hepatitis and Gastritis	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Hypertrophy of Heart	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Meningitis	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Œdema of Lungs	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Pneumonia	2	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Uræmia	24	8	12	3	1	7	12	4	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Bronchitis	7	4	3	..	..	1	4	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Cellulitis of Leg and Knee	2	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congestion of Brain	31	8	19	2	2	8	15	4	..	1	..	..	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..
Congestion of Lungs	12	2	7	3	..	3	7	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera Morbus	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions	4	2	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delirium Tremens (alone)	35	10	16	2	7	8	13	9	..	..	..	..	3	1	..	..	1	..	..	..	..	..	..	..	..	..	..
Diarrhœa	6	..	5	1	..	..	3	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Direct Effect of Solar Heat	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Bright's Disease—Hepatitis and Gastritis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
" Hypertrophy of Heart	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
" Meningitis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Œdema of Lungs	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Pneumonia	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
" Uræmia	..	..	2	..	1	2	2	3	6	..	1	2	..	..	3	..	1	..	..	..	..	..
Bronchitis	..	..	1	..	3	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..
Cellulitis of Leg and Knee	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congestion of Brain	3	..	7	1	7	2	2	1	2	..	2	1	..	..	..	..	1	1	..	..	..	..
Congestion of Lungs	1	..	1	..	2	1	..	1	1	1	2	..	..	1	..	1	..	..	..	..	..	..
Cholera Morbus	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions	1	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delirium Tremens (alone)	7	..	3	2	5	1	5	1	5	..	5	..	..	..	..	..	..	..	1	..	..	..
Diarrhœa	..	..	..	..	1	1	..	..	1	..	..	1	1	..	..	..	1	..	..	..	..	..
Direct Effect of Solar Heat	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Empyema	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteritis	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	5	3	2	..	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Erysipelas	4	..	4	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene of Intestines	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of Lungs	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis	23	3	18	1	1	5	14	1	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	2
Gastro-Enteritis	5	1	1	1	2	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Homicide by Drowning	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Fractures and Contusions	5	4	1	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Hæmatemesis	4	1	2	1	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Heart, Disease of	3	1	2	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Fatty Degeneration of	3	1	1	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Hypertrophy of	3	1	2	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25-30		30-35		35-40		40-45		45-50		50-55		55-60		60-65		65-70		70-75		75-80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Empyema	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Enteritis	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Erysipelas	..	..	1	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Gangrene of Intestines	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of Lungs	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis	2	1	..	3	1	4	1	..	3	..	..	2	..	..	2	1	1	..	..	..	..	..
Gastro-Enteritis	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..
Homicide by Drowning	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Fractures and Contusions	..	..	1	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
Hæmatemesis	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Heart, Disease of	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Fatty Degeneration of	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
" Hypertrophy of	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Heart, Valvul.r Disease of	9	2	5	2	..	3	5	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hepatitis	2	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inanition	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Insanity	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intemperance (alone)	65	19	24	7	15	16	30	10	..	..	2	..	3	1	..	..	..	..	..	..	3	..	..	..	..	2	..
Jaundice	2	..	1	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kidneys, Fatty Degeneration of	2	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Liver, Cirrhosis of	20	1	15	4	..	2	12	5	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
" Fatty Degeneration of	8	3	5	..	..	2	5	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
" Hypertrophy of	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	10	4	3	2	1	2	4	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Miscarriage	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis	4	..	4	..	..	1	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Operation for Strangulated Inguinal Hernia	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ovarian Dropsy	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Heart, Valvular Disease of	..	..	..	..	..	1	..	2	..	1	3	..	1	..	1	..	..	..	..	..	..	..
Hepatitis	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Inanition	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Insanity	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intemperance (alone)	2	2	6	1	13	5	9	3	6	2	6	1	2	..	1	1	1	..	1	1	..	..
Jaundice	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Kidneys, Fatty Degeneration of	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Liver, Cirrhosis of	1	..	..	1	2	2	1	1	3	1	..	3	2	..	1	..	1	1	..	..	..	..
" Fatty Degeneration of	..	..	1	..	1	2	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
" Hypertrophy of	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	1	..	1	..	..	..	2	1	1	..	2	1	..	..	..	..	..	..	..	..	..	..
Miscarriage	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Nephritis	..	..	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Operation for Strangulated Inguinal Hernia	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ovarian Dropsy	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Paralysis	3	1	2	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Pericarditis	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis	2	..	2	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Phthisis Pulmonalis	37	7	23	6	1	8	25	1	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
" Bright's Disease	2	..	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Meningitis	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Ulceration of Stomach	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pleurisy	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia	66	18	32	11	5	13	40	9	..	..	1	..	..	..	..	1	..	..	..	..	2	..	..	..	..	1	..
Remittent Fever	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	2	..	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Senile Asthenia	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Softening of Brain	4	1	..	..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Suicide by Butting his Head against Bars of Cell	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by Cutting	2	1	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Paralysis	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Pericarditis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis Pulmonalis	3	1	6	1	4	3	6	2	3	..	2	2	1	..	3	..	..	..	..	..	..	..
" Bright's Disease	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Meningitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Ulceration of Stomach	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pleurisy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia	6	2	3	1	9	4	6	2	12	1	7	1	2	2	1	3	1	..	2	..	..	..
Remittent Fever	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..
Senile Asthenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Softening of Brain	1	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Suicide by Butting his Head against Bars of Cell	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suicide by Cutting	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Total.	Condition.				Nativity.																Age.					
		Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Canada.	Denmark.	England.	France.	Russia.	Scotland.	Sweden and Norway.	Switzerland.	Turkey.	West Indies.	Unknown.	Under 5 Years of Age.		15–20		20–25	
																						M.	F.	M.	F.	M.	F.
Suicide by Gunshot	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
" by Hanging	4	1	3	..	..	..	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Laudanum	4	..	3	1	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Leap	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Morphine	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" by Paris Green	3	..	3	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	3	..	2	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Typhoid Fever	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uræmia	21	4	13	3	1	2	12	3	..	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Ulcer of Leg	3	1	..	2	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of Stomach	2	1	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	588	153	307	71	57	143	287	85	2	2	7	1	25	7	2	11	3	1	1	1	10	1	..	2	..	9	8

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE IN THE TWELVE MONTHS ENDING DECEMBER 31, 1874—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Certified and Registered.	Age.																					
	25-30		30-35		35-40		40-45		45-50		50-55		55-60		60-65		65-70		70-75		75-80	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Suicide by Gunshot	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Hanging	1	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" by Laudanum	..	..	2	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" by Leap	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Morphine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" by Paris Green	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..
Syphilis	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uræmia	..	..	3	..	..	2	4	1	2	1	1	2	..	..	3	..	..	1	..	..	..	..
Ulcer of Leg	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
" of Stomach	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Total	44	12	58	20	79	44	54	21	68	20	49	21	20	4	21	7	11	3	7	3	..	2

Males, **423**; Females, **165**—Total, **588**.

OCCUPATION OF INEBRIATES.

Actresses	2	Cook, Female	1
Agent	1	Coppersmith	1
Artificial Flower-maker	1	Domestics, Female	22
Bakers	5	Dress-makers	3
Barbers	2	Drivers	5
Bartenders	5	Druggist	1
Basket-maker	1	Farmers and Gardeners	2
Blacksmiths	6	Engineers	3
Boardinghouse-keeper	1	Firemen	2
Boatmen	3	Fish Dealer	1
Bookbinder	1	Grocers	3
Boiler-makers	2	Harness-makers	3
Brass-finishers	3	Hatters	6
Butchers	7	House-keepers	41
Carmen	10	Horse Dealer	1
Carpenters	10	Jeweler	1
Chair-maker	1	Junkman	1
Cigar-makers	4	Laborers	79
Clerks	28	Lamplighter	1
Compositors	2	Lawyers	6
Conductor	1	Liquor Dealers	4
Confectioner	1	Lithographers and Engravers	2

OCCUPATION OF INEBRIATES—(*Continued*).

Locksmiths	2	Prostitutes	3
Longshoreman	1	Quillmaker	1
Machinists	3	Rag-picker	1
Marketman	1	Sawfiler	1
Masons and Builders	7	Sailors and Seamen	4
Mechanic	1	Saloon-keepers	9
Merchants	6	Seamstresses	2
Milkman	1	Shoemakers	3
Milliner	1	Stablemen	3
Miner	1	Stone-cutters	4
Moulders	2	Store-keepers	3
Musicians	2	Tailors	6
Newsdealer	1	Tinsmiths	2
Oystermen	3	Upholsterer	1
Painters	7	United States Navy service	1
Peddlers	7	Waiters	5
Physician	1	Watchmen	3
Pilot	1	Weigher	1
Plumbers	2	Wheelwright	1
Porters	4	Not stated	191
Printers	3	Total	588

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE FOR THE YEAR 1875,

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Condition.				Nativity.																Age.			
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	15–20		20–25	
																					M.	F.	M.	F.
Accidents—																								
Burns of Face and Arm	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Drowning	2	6	1	1	2	4	2	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..
Gangrene of Scrotum, from accidental blow	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Run over by Dummy Engine, Amputation of Arm	..	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Falls	3	7	4	1	2	11	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Run Over by Stone Car	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ascites	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Albuminuria	..	3	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy	1	8	1	..	5	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Bright's Disease	2	24	9	13	9	27	4	..	..	..	4	..	..	..	..	1	1	..	..	2	..	..	2	1
" Cirrhosis	2	3	1	1	2	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Pneumonia, Pericarditis, Uræmia	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Uræmia	1	13	4	1	3	8	4	..	..	..	1	..	..	..	..	1	1	1	..	..	..	..	1	..
" Pleuritis	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Valvular Disease of Heart	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Rheumatism, Diarrhœa	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Age.																										Total.
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80		80–85		Un-known.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Accidents—																											
Burns of Face and Arm	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Drowning	3	..	1	..	1	..	2	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	...
Gangrene of Scrotum, from accidental blow.	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Run Over by Dummy Engine, Amputation of Arm	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Falls	2	..	2	..	1	..	1	..	1	..	3	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	...
Run Over by Stone Car	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Ascites	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Albuminuria	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Apoplexy	..	..	..	..	..	2	..	..	1	1	1	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	...
Bright's Disease	3	3	1	4	5	5	2	2	2	2	1	3	1	3	3	1	1	..	1	1	..	..	..	..	1	..	...
" Cirrhosis	..	..	..	1	2	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Pneumonia, Pericarditis, Uræmia	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Uræmia	2	1	..	..	2	1	6	1	2	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	...
" Pleuritis	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Valvular Disease of Heart	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Rheumatism, Diarrhœa	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Condition.				Nativity.																Age.			
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	15-20		20-25	
																					M.	F.	M.	F.
Bright's Disease, Dropsy	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Biliary Calculi, Jaundice, Fatty Degeneration of Kidneys, Uræmia	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis	1	1	1	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Cancer of Face, Pneumonia	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera Morbus	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congestive Chill	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Calculus	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Congestion of Brain	3	5	..	2	4	2	..	..	..	..	2	..	..	..	..	1	1	..	..	..	..	..	..	..
" Kidneys	2	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" Lungs	..	6	1	..	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dropsy	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	..	3	..	1	..	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
" Chronic Bright's Disease, Gastritis	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delirium Tremens (alone)	7	17	4	6	8	19	5	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..
Erysipelas	..	3	1	2	1	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Age.																										Total.
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80		80–85		Unknown.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Bright's Disease, Dropsy	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Biliary Calculi, Jaundice, Fatty Degeneration of Kidneys, Uræmia	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Bronchitis	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Cancer of Face, Pneumonia	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Cholera Morbus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	...
Congestive Chill	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	...
Cerebro-Spinal Meningitis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Calculus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	...
Congestion of Brain	..	..	2	..	2	..	2	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Kidneys	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Lungs	1	..	1	..	1	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Dropsy	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Diarrhœa	..	..	..	..	1	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Chronic Bright's Disease, Gastritis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Dysentery	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Delirium Tremens (alone)	1	1	7	2	6	1	3	1	6	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Erysipelas	..	..	..	..	..	..	1	..	..	..	..	..	2	..	1	..	1	1	..	..	..	..	..	..	..	..	...

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Condition.				Nativity.																Age.			
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	15-20 M.	15-20 F.	20-25 M.	20-25 F.
Enteritis	..	3	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis—Gunshot Wound of Spine received during the War	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	1	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Encephalitis	..	2	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gastritis	2	11	4	2	5	10	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Gastro-Enteritis	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Homicidal Stab Wound of Side, Bright's Disease	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Homicide by being Knocked Down, Fracture of Skull	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Hepatitis	1	3	..	1	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Hemiplegia	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hæmaturia	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Heart, Dilatation of	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
“ Hypertrophy and Valvular Disease of	1	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
“ Valvular Disease of	..	1	2	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
“ “ Bright's Disease	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
“ Fatty Degeneration of	..	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
“ Disease of	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

CAUSE OF DEATH, CONNECTED WITH INTEMPERANCE.	AGE.																											TOTAL.
	25-30		30-35		35-40		40-45		45-50		50-55		55-60		60-65		65-70		70-75		75-80		80-85		Unknown.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Enteritis	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	...
Encephalitis—Gunshot Wound of Spine received during the War	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Epilepsy	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Encephalitis	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Gastritis	1	2	..	1	2	2	2	2	1	1	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	...
Gastro-Enteritis	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Homicidal Stab Wound of Side, Bright's Disease	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Homicide by being Knocked Down, Fracture of Skull	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Hepatitis	..	1	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Hemiplegia	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Hæmaturia	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Heart, Dilatation of	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Hypertrophy and Valvular Disease of	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Valvular Disease of	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	...
" " Bright's Disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Fatty Degeneration of	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	...
" Disease of	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Condition.				Nativity.																Age.			
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	15–20		20–25	
																					M.	F.	M.	F.
Hernia Inguinal	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hæmoptysis	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inanition	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intemperance (alone)	5	11	3	8	7	12	5	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	..
Insanity	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jaundice	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kidneys, Congestion of	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Liver, Hypertrophy of	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Fatty Degeneration of	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" Cirrhosis of	2	12	5	4	3	13	4	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..
" and Kidneys, Fatty Degeneration of	1	3	..	1	2	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Laryngitis, Gastritis, Œdema Glottidis	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis	..	4	..	1	1	1	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Myelitis	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Miscarriage	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis	2	5	3	..	4	5	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Old Age	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Age.																										Total.
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80		80–85		Un-known.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Hernia Inguinal	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Hæmoptysis	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Inanition	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Intemperance (alone)	1	1	4	3	3	..	3	2	2	1	2	1	1	..	..	..	..	2	..	..	..	..	..	..	..	..	...
Insanity	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Jaundice	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Kidneys, Congestion of	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Liver, Hypertrophy of	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Fatty Degeneration of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Cirrhosis of	..	1	..	2	2	3	1	..	1	2	3	1	2	2	3	..	..	..	..	..	..	..	..	..	..	..	...
" and Kidneys, Fatty Degeneration of	..	..	..	..	..	1	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	...
Laryngitis, Gastritis, Œdema Glottidis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Meningitis	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	...
Myelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Miscarriage	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Nephritis	..	1	..	1	2	3	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	...
Old Age	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	...

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

CAUSE OF DEATH CONNECTED WITH INTEMPERANCE.	CONDITION.				NATIVITY.																AGE.			
																					15–20		20–25	
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	M.	F.	M.	F.
Œdema of Lungs	1	..	2	1	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Purpura Hæmorrhagica	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peritonitis	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Perforating Ulcer of Intestines	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Phthisis Pulmonalis	6	18	4	7	11	17	5	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	2	..
Paralysis	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pericarditis	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia	15	33	12	16	23	38	8	..	..	..	5	..	..	..	..	1	..	..	..	1	..	1	1	3
" Gangrene of Lungs	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pleuro-Hydrothorax	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis of Lungs and Heart	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Small-pox	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sun Stroke	..	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Suicide by Poison	..	5	..	1	3	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
" Cutting Throat	..	..	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Hanging	1	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Age.																										Total.
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80		80–85		Un-known.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Œdema of Lungs	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	...
Purpura Hæmorrhagica	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Peritonitis	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Perforating Ulcer of Intestines	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Phthisis Pulmonalis	1	1	4	2	5	1	5	2	2	1	2	1	1	..	1	1	1	1	..	..	..	..	..	..	..	..	...
Paralysis	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Pericarditis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Pneumonia	7	1	9	2	8	7	8	..	12	..	5	..	3	3	..	..	3	..	1	1	..	..	..	..	1	..	...
" Gangrene of Lungs	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Pleuro-Hydrothorax	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Paralysis of Lungs and Heart	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Rheumatism	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Small-pox	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Sun Stroke	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Suicide by Poison	..	..	..	..	1	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Cutting Throat	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
" Hanging	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	...

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Condition.				Nativity.																Age.			
	Single.	Married.	Widowed.	Unknown.	United States.	Ireland.	Germany.	Austria.	Belgium.	Denmark.	England.	Finland.	France.	Norway.	Russia.	Scotland.	Switzerland.	Sweden.	South America.	Unknown.	15-20		20-25	
																					M.	F.	M.	F
Suicide by Shooting	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tubercular Peritonitis	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..
Trichina—Bright's Disease	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uræmia	3	5	1	2	1	8	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..
Ulcer of Leg	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Ulcer of Stomach, Peritonitis	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	69	255	74	89	121	248	63	2	1	1	20	2	2	2	1	8	4	2	1	9	3	2	15	11

TABLE OF DEATHS DUE DIRECTLY OR REMOTELY TO INTEMPERANCE, FOR THE YEAR 1875—(*Continued*).

Showing the Diseases connected therewith, with Nativity, Age, etc., of each Victim.

Cause of Death Connected with Intemperance.	Age.																										Total.
	25–30		30–35		35–40		40–45		45–50		50–55		55–60		60–65		65–70		70–75		75–80		80–85		Un-known.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Suicide by Shooting	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Typhoid Fever	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Tubercular Peritonitis	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Trichina—Bright's Disease	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Uræmia	..	2	..	1	..	1	2	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	...
Ulcer of Leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	...
Ulcer of Stomach, Peritonitis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...
Total	26	21	42	20	55	33	53	27	45	15	28	10	24	13	12	8	8	5	3	2	2	..	1	..	3	..	487

Males, 320; Females, 167—Total, 487.

OCCUPATIONS OF INEBRIATES.

Actor	1
Agents	5
Artist	1
Ashman	1
Bakers	4
Bartenders	6
Blacksmiths	4
Boatmen	5
Brewers	3
Bricklayers	2
Brokers	3
Bookkeeper	1
Butchers	6
Builder	1
Bottler	1
Boilermaker	1
Brass Finisher	1
Ballast Master	1
Boarding-house Keeper	1
Carriage Trimmer	1
Carpenters	3
Clerks	11
Cooks—Female	5
“ Male	2
Cooper	1
Cigarmakers	4
Conductor	1
Compositors	2
Collector	1
Coal Heaver	1
Carpet Weaver	1
Domestics—Female	24
Drivers and Carmen	14
Dressmaker	1
Druggist	1
Dyers	2
Engineer	1
Expressman	1
Farmer	1
Fireman	1
Flagman	1
Fish and Oystermen	3
Gardeners	2
Grocers	2
Housekeepers	26
Harnessmaker	1
Hatter	1
Hostler	1
Junkmen	3
Journalist	1
Laborers	66
Longshoremen	3
Livery Stable Keeper	1
Lawyers	2
Laundress	1
Locksmith	1
Musician	1
Machinists	2
Masons	3
Merchants	9
Milkman	1
Miller	1
Newspaper Carrier	1
Painters	2
Peddlers	6
Piano Maker	1
Physician	1
Plasterer	1
Plumbers and Gasfitters	3
Policeman	1
Porter	1
Printers	2
Prostitute	1
Policy Dealer	1
Rigger	1
Rag Picker	1
Runner	1
Silk Winder	1
Sailors and Seamen	3
Salesmen	4
Saloon-keepers	3
Shoemakers	6
Soldiers	2
Ship-carpenter	1
Sewers and Seamstresses	2
Silk Weaver	1
Tinsmith	1
Tailors	4
Underwriter	1
Upholsterer	1
Vagrants	2
Veterinary Surgeon	1
Waiter	1
Washerwomen	2
Watchman	1
Weaver	1
Whitewashers	2
Not stated	164
Total	487

ABSTRACT OF DEATHS CERTIFIED AS DEPENDENT UPON NEPHRIA, OR BRIGHT'S DISEASE OF THE KIDNEYS,

With Complicating Causes, Age, Sex, Condition, and Occupations of Decedents.

Nephria, or Bright's Disease (no complicating diseases defined)	269

Nephria, or Bright's Disease, complicated with—

Abscess of Kidneys	1
Anæmia	2
Apoplexy	8
Ascites	4
Atheroma of Cerebral Artery	1
Atrophy of Liver	1
Bronchitis	6
Cholera Morbus	2
Convulsions	5
Congestion of Brain	5
" Lungs	4
" Liver	1
Colic	1
Cirrhosis of Liver	11
Calculus	1
Childbirth	7
Cystitis	3
Diabetes	1
Diarrhœa	9
Disease of the Heart	6
Dropsy	49
Dysentery	2
Erysipelas	3
Encephalitis	1
Epilepsy	3
Embolism of Cerebral Artery	1
Emphysema	2
Enteritis	2
Fatty Degeneration of the Heart	4
" " Liver	2
" " Kidneys	1
Fistula in Ano	1
Gastritis	1
Gastro-Enteritis	1
Hemiplegia	1
Hypertrophy of the Heart	11
Hydrothorax	8
Hæmorrhage of the Lungs	1
" Kidneys	1
Hepatitis	2
Hip Disease	1
Inanition	1
Intemperance	66
Intermittent Fever	1
Jaundice	1
Laryngitis	1

Nephria, or Bright's Disease, complicated with—

Meningitis	6
Nephritis	3
Paralysis	4
Pericarditis	10
Phlebitis	1
Pneumonia	18
Pleuritis	3
Œdema of Lungs	73
Peritonitis	1
Puerperal Convulsions	1
Pregnancy	5
Poison (opium eater)	1
Quinsy (Tonsillitis)	1
Rheumatism	6
Scarlatina	1
Syphilis	1
Softening of the Brain	1
Syncope	2
Suppression of Urine	1
Senile Gangrene (dry)	1
Typhoid Fever	1
Tabes Mesenterica	1
Senile Asthenia	1
Ulcer of Rectum	1
" Leg	1
Uræmia	151
Valvular Disease of the Heart	15
Total	827

SEXES.

Males	428
Females	399
Total	827

CONDITION.

Single	198
Married	406
Widowed	164
Unknown	59
Total	827

NATIVITY AGE, AND SEX OF THE DECEDENTS FROM BRIGHT'S DISEASE.

Nativity.				Colored.		Under 1 Year.		1—		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
United States.		Foreign.																											
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
135	127	293	272	21	21	2	2	2	2	2	1	1	6	3	1	10	12	8	5	4	6	5	11	13	25	28	36	44	37
262		565		42		4		4		3		7		4		22		13		10		16		38		64		81	

35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		95—		Total by Sexes.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
39	58	35	32	54	48	56	21	39	26	35	18	18	25	25	20	5	10	7	7	2	..	1	1	..	1	428	399
97		67		103		77		65		53		43		45		15		14		2		2		1		827	

NATIVITY.

United States.	Ireland.	Germany.	Austria.	Canada.	Denmark.	England.	France.	Greece.	Holland.	Italy.	Norway.	Nova Scotia.	Poland.	Russia.	Scotland.	Sweden.	Switzerland.	Turkey.	West Indies.	Unknown.	Total.
262	365	110	1	3	2	38	6	1	2	1	1	1	1	1	14	2	3	1	4	8	827

OCCUPATIONS.

Artificial Flower-maker	1
Architect	1
Agent	1
Bakers	2
Bartenders	2
Boarding-house Keeper	1
Brass Moulder	1
Bricklayer	1
Butchers	4
Brass-finishers	2
Bookbinders	2
Basket-maker	1
Carpenters	12
Cigar-makers	2
Clerks and Salesmen	26
Clergymen	2
Coachmen and Drivers	14
Conductors	2
Confectioner	1
Cooks	2
Coopers	3
Compositor	1
Chemist	1
Caterer	1
Collector	1
Carriage-makers	2
Domestics	63
Dressmakers	2
Druggist	1
Designer	1
Engineers	2
Engraver	1
Farmers and Gardeners	2
Fireman	1
Fish and Oystermen	4
Gilder	1
Grocers	9
Hatter	1
Housekeepers	57
Hostler	1
Inventor	1
Iron Moulder	1
Laborers	79
Laundress	1
Lawyers	4
'Longshoreman	1
Locksmiths	2
Lamplighter	1
Lard Refiner	1
Machinists	2
Masons	5
Merchants	15
Miller	1
Musicians	2
Milkmen	2
Painters	11
Peddlers	7
Physician	1
Piano-maker	1
Plasterer	1
Police and Watchmen	5
Porters	3
Printers	4
Paper-box Maker	1
Restaurant Keeper	1
Saddler	1
Saloon-keepers	7
Seamen and Sailors	4
Seamstresses	4
Shoemakers	4
Saw-filer	1
Student	1
Sugar Refiner	1
Steward	1
Turner	1
Tailors	2
Teachers	3
Tinsmiths	3
Telegraph Operators	2
Waiters	5
Washerwoman	1
Children and occupation not given	388
Total	827

ABSTRACT OF DEATHS CERTIFIED AS DEPENDENT UPON NEPHRIA, OR BRIGHT'S DISEASE OF THE KIDNEYS,

WITH COMPLICATING CAUSES OF AGE, SEX, CONDITION, AND OCCUPATIONS OF DECEDENTS, FOR 1875.

Nephria, or Bright's Disease, complicated with—	
Atheroma	1
Albuminuria	2
Anasarca	7
Anaemia	5
Apoplexy	7
Asthma	2
Ascites	8
Asthenia	4
Brain, congestion of	8
Brain, œdema of	4
Brain, softening of	1
Bronchitis	10
Calculus	1
Chills, congestive	1
Childbirth	1
Cholera Morbus	3
Convulsions	23
Convulsions, puerperal	1
Cystitis	2
Dementia	3
Diabetes	1
Diarrhœa	11
Dropsy	59
Dysentery	5
Enteritis	2
Epilepsy	1
Erysipelas	6
Emphysema	2
Endocarditis	2
Exhaustion	1
Fever, intermittent	1
Fever, typho-malarial	1
Gastritis	4
Hepatitis	1
Hemiplegia	1
Hydrothorax	5
Haematemesis	2
Heart, disease of	9
Heart, fatty degeneration of	6
Heart, hypertrophy of	10
Heart, valvular disease of	19
Inanition	4
Intemperance	28
Jaundice	1

Nephria, or Bright's Disease, complicated with—	
Kidneys, cirrhosis of	1
Kidneys, contracted	1
Kidneys, congestion of	1
Kidneys, suppuration and perforation of	1
Kidneys, waxy	1
Liver, cirrhosis of	10
Liver, fatty	2
Liver, fatty degeneration of	2
Liver, hypertrophy of	1
Lungs, congestion of	10
Lungs, gangrene of	2
Lungs, œdema of	62
Locomotor, ataxia	1
Marasmus	1
Melancholia	1
Meningitis	9
Myelitis	1
Necrosis of femur	1
Nephritis	1
Neuroses, hysterical	1
Obesity	1
Paralysis	3
Paracentesis	1
Peritonitis	4
Pericarditis	9
Pelvic abscess	1
Pneumonia	24
Pleuritis	7
Phthisis	2
Pyelitis	1
Rheumatism	12
Senile asthenia	6
Suppression of urine	4
Toxaemia	1
Thrush	1
Uraemia	211
Varicose ulcer of leg	1
Vomiting	2
Total complicating diseases	677
Nephria, or Bright's disease, no complicating disease certified	232
Total	909

NATIVITY, AGE, AND SEX OF THE DECEDENTS, FROM NEPHRIA, OR BRIGHT'S DISEASE, IN 1875.

NATIVITY.				Colored.		Under 1 Year.		2—		3—		4—		Total Under 5 Years.		5—		10—		15—		20—		25—		30—	
United States.		Foreign.																									
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
162	153	299	295	11	14	2	4	3	2	1	2	1	1	7	9	5	4	2	5	8	11	19	31	33	40	22	39

35—		40—		45—		50—		55—		60—		65—		70—		75—		80—		85—		90—		TOTAL BY SEXES.		TOTAL BOTH SEXES.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
52	52	59	44	56	41	50	39	43	39	44	33	23	26	15	15	12	10	7	6	2	2	2	2	461	448	909

NATIVITY.																					SEX.			CONDITION.				
United States.	Ireland.	Germany.	Austria.	Belgium.	Bohemia.	Canada.	Cuba.	Denmark.	England.	France.	Holland.	Italy.	Poland.	Russia.	Scotland.	Sweden.	Switzerland.	Wales.	Unknown.	TOTAL.	Male.	Female.	TOTAL.	Single.	Married.	Widowed.	Unknown.	TOTAL.
309	334	172	2	1	1	2	3	1	39	3	4	3	1	1	15	2	5	5	6	909	461	448	909	149	411	182	167	909

OCCUPATIONS.

Actor	1
Agents	2
Apothecary	1
Author	1
Barbers	2
Bakers	12
Bankers	2
Bartenders	2
Blacksmiths	2
Brass moulder	1
Bricklayers	2
Boardinghouse-keeper	1
Boiler maker	1
Book-keeper	1
Bookbinder	1
Broker	1
Broom maker	1
Butchers	4
Carpenters	12
Carver	1
Caulker	1
Cabinet maker	1
Clerks and salesmen	24
Cigar makers	5
Coachmen	5
Confectioner	1
Contractors	2
Cooks (male)	3
Cooks (female)	3
Cooper	1
Coal heaver	1
Cutter	1
Dressmakers	3
Drivers and carmen	10
Domestics (female)	70
Dockbuilder	1
Druggists	2
Dyer	1
Editor	1
Engraver	1
Engineers	3
Farmers and Gardeners	4
Firemen	2
Foundryman	1
Furrier	1
Glazier	1
Gilder	1
Grocers	3
Harness maker	1
House-keepers	54
Inventor	1
Iron worker	1
Jewelers	2
Junk dealers	3
Laborers	58
Laundresses	3
Leather worker	1
Livery stable-keeper	1
'Longshoreman	1
Locksmith	1
Machinists	3
Masons	3
Merchants	12
Missionary (bible reader)	1
Moulders	2
Musicians	3
Nurse	1
Oystermen	2
Painters	6
Pawnbroker	1
Plasterer	1
Peddlers	3
Printers	9
Piano-makers	2
Police Justice	1
Porters	3
Policemen and watchmen	2
Plumbers	4
Prostitute	1
Physician	1
Ragpickers	2
Reporter	1
Riggers	2
Real estate broker	1
Roofer	1
Sailors	5
Saloon-keepers	5
Stage proprietors	2
Steward	1
Steam fitter	1
Silk weaver	1
Shoemakers	7
Shoe manufacturers	3
Store-keeper	1
Tramp	1
Tailoresses	4
Tax collector	1
Tailors	14
Teachers	4
Tinsmiths	2
Tinman	1
Undertaker	1
Upholsterers	2
Umbrella maker	1
Vagrant	1
Varnisher	1
Waiters	6
Waitress	1
Watch makers	2
Washerwoman	1
Wheelwright	1
Children and no occupation given	440
Total	909

ACCIDENTAL DEATHS, 1874.

ACCIDENTS AND NEGLIGENCE.

Abortion produced upon herself by medicines	1
Breaking of a derrick chain	1
Blow on abdomen	1
Crushed between street railroad cars	1
“ “ cars	1
“ “ freight cars	1
“ “ wall and boiler	1
“ “ steamboat and dock	1
“ by machinery	2
“ by wagon and pole	1
“ by rocks	1
“ by bar of railroad iron	1
“ by cart	1
“ by Flushing and L. I. R. R. car	1
“ by shafting	1
Caught between post and wagon	1
“ “ wheel and box of cart	1
“ “ canal boat and lock-gate	1
Collision of ferry-boats	1
Explosion of boiler	1
Fracture and contusion (not stated)	20
“ of thumb	1
“ of little finger on right hand	1
“ of knee	1
“ of sternum	1
Fall of a brick	1
“ of a box	3
“ of a barrel	2
“ of derrick	2
“ of lumber	2
“ of platform	1
“ of piece of casting	1
“ of iron pipe	1
“ of stone jar	1
“ of wall	1
“ of grating	1
“ of gaff	1
“ of stone	1
“ of gate	1
“ of flag-post	1
“ on circular saw	1
Fall in of embankment	3
Gored by cattle	2
Knocked down by wagon	1
“ “ by runaway horse	3
“ “ by truck	1
Kick by horse	6
Legs twisted off at knees by hay cutting machine	1
Leap from window while house on fire	3
“ carriage (runaway horses)	1
Struck by a locomotive or train	9
“ by a stone	2
“ from a blast	2
“ by beam	1
“ with a club	1
“ by windlass	1
“ by coal-bunker	1
Struck by bridge of a freight car	1
“ on head during a fight	1
“ by ice-pick	1
“ by bale of rags	1
Thrown from cart by collision	1
“ “ wagon	6
“ against a tree by a horse	1
Wounds (*a*) incised	1
“ (*b*) gunshot	11
“ of face	1
“ of foot (by a nail)	3
“ of foot (by splinter)	1
“ of knee (by a needle)	1
“ abortion with pen-handle (by herself)	1
Total from accidents and negligence	135

KILLED BY VEHICLES IN THE STREETS, ETC.

By street railroad cars	33
By steam railroad cars	22
By other vehicles	26
Total killed by vehicles in the streets	81

BURNS AND SCALDS.

Burns (by means not stated)	3
“ by explosion of kerosene oil lamp	3
“ “ “ can	1
“ clothes (by stove)	15
“ “ (means not stated)	2
“ “ (by lighted paper)	2
“ “ (by matches)	3
“ “ (by lighted straw)	1
“ “ (by lighted stick)	1
“ “ (by bon-fire)	1
“ “ (while lighting a fire)	1
“ “ (from furnace)	1
“ “ (from kerosene oil lamp)	2
“ “ (from alcohol while heating)	1
“ “ at a fire	4
“ at a fire (24 East Sixtieth street)	2
“ “ (3d ave., bet. 141st and 142d sts.)	4
“ (hair of head, accidentally)	2
“ falling against stove	1
“ “ into pit of boiling cement	1
“ bed fired by smoker	1
“ kerosene oil lamp setting fire to bed	1
“ by kerosene oil while lighting fire	1
“ by upsetting kerosene oil lamp	1
“ by kerosene oil from tank	1
“ from a candle	1
Scalds by hot water	42
“ “ coffee	4
“ “ tea	4
“ “ liquid	1
Total burns and scalds	108

ACCIDENTAL DEATHS, 1874—(*Continued*).

ACCIDENTAL POISON.

Poison by cyanide of potassium	1
" by colchicum	1
" by carbolic acid	1
" by chloroform	1
" by fusel oil	1
" by kerosene oil	1
" by laudanum	1
" by morphine	2
" by oxalic acid	1
" by opium	3
" by potassa	1
" by paris green	4
" by phosphorus	2
" by pickles	3
" by sulphate of morphine	1
" by tincture of gelsemium	1
Total accidental poisoning	25

ACCIDENTAL SUFFOCATION.

Overlaid in bed	21
By illuminating gas	1
By inhalation of steam from tea kettle	1
By inhaling chloroform	1
By piece of cord	1
By (manner not stated)	5
By falling into wash boiler	1
" " pail of liquid	1
" " privy vault	1
" " vat of carbonic acid gas	1
Lodgment of button in pharynx	1
" of food in trachea	1
" of meat in larynx	1
" of chicken bone in larynx	1
Total accidental suffocation	38

DROWNING.

Supposed drowning	160
Fall from ferry-boat	1
" from barge	1
" from bow of vessel	1
" from dock while fishing	1
" " " intoxicated	1
While bathing	5
Upsetting of row-boat	1
Effects following Immersion	3
Total drowning	174

MISCELLANEOUS.

Neglect and exposure	26
Decomposed when found, cause unascertained	1

ACCIDENTAL FALLS.

Fall from roofs	15
" from window	44
" from scaffold	8
" from chair	6
" from truck	3
" from wagon	8
" from cart and run over	2
" from carriage	2
" from derrick	1
" from building	12
" from ladder	5
" from elevator	1
" from scuttle hole	1
" from mast	2
" from sofa	1
" from rocks	3
" from railing	1
" from horse	2
" from freight car	1
" from tree	1
" from awning	2
" from load of hay	1
" from mason horse	1
" from timber	2
" from street car	1
" from fire-escape	1
" from E. R. bridge pier	1
" from bed	1
" from sky-light	1
" from swing	1
" from shed	2
" from grape-arbor	1
" down stairs	58
" into area	6
" down embankment	3
" down steps of church	1
" through hatchway	28
" " floorway	1
" " dumb-waiter opening	1
" in street	26
" in hallway	2
" in room	5
" in yard	1
" in stable	1
" in the Tombs "prison"	1
" on pier	1
" on ice	1
" while at play	1
" while performing "leap for life"	1
" over railing of tunnel	1
" (manner not stated)	7
Total accidental falls	279

ACCIDENTAL DEATHS, 1874—(*Continued*).

SUICIDES.

By drowning	13
" hanging	31
" cut and stab	20
" gunshot	36
" jumping from height	7
" butting head against bars of cell	1
" arsenic	3
" acid	1
" bichloride of mercury	1
" cyanide of potassium	3
" corosive	1
" chloroform	1
" hydrate of chloral	2
" inhaling charcoal gas	1
" laudanum	11
" morphine	3
" "magnetic rat poison"	2
" narcotic poison	1
" opium	8
" oxalic acid	3
" oil of tansy	1
By (poison not stated)	1
" paris green	24
" prussic acid	1
" phosphorus	1
" strychnine	2
" sulphuric acid	1
Total suicides	180

HOMICIDES.

By burns	2
" blows	27
" abortion	3
" cut and stab	5
" gunshot	14
" kicks	2
" drowning	4
" suffocation	1
" thrust down stairs	1
Total homicides	59

RECAPITULATION.

Accident and negligence	135
Killed by vehicles in streets	81
Burns and scalds	108
Poisoning, accidental	25
Suffocation, accidental	38
Drowning, accidental	174
Falls, accidental	279
Surgical operations	142
Miscellaneous	26
Suicides	180
Homicides	59
Sudden death, cause unascertained	1
Total violent deaths	1,248

ACCIDENTAL DEATHS, 1875.

ACCIDENTS AND NEGLIGENCE.

Caught by machinery belting	1
“ by machinery	4
“ by elevator	4
Collision of cars	1
Coupling of cars	1
Crushed between cart and wall	1
“ “ deck and lighter	1
“ “ truck and block marble	1
“ by elevator	1
“ by ferry-boat	1
“ by fall of boiler	1
“ by Sixth Avenue R. R. car	1
Crushing of hand by machinery	1
Dislocation of thumb during a fight	1
Explosion of a blast	1
“ of a cylinder	1
Fracture and contusion (not stated)	11
“ hair caught in machinery	1
“ by a horse stepping on him	1
“ of joints of finger	1
“ of finger, crushed by board of a cask	1
“ of finger, crushed by machinery	1
“ of skull	1
“ of tibia, gangrene	1
Falling in of embankment	1
Fall of a brick	3
“ of a block	1
“ of a building	1
“ of a barrel of sugar	1
“ of a barrel of flour	1
“ of a derrick	2
“ of an elevator	2
“ of embankment of dirt	1
“ of a horse	1
“ of a wooden horse	1
“ of iron grate	1
“ of log of wood	1
“ of a pipe	1
“ of a roll of carpet	1
“ of roof of house	1
“ of hogshead from truck	1
“ of shutter	1
“ of wall	2
“ of wall of building	1
“ of (St. Andrew's Church) wall	2
“ against gang rope	1
“ between two barges	1
Injuries from blast (premature and otherwise)	4
“ from blow	1
“ from blow on head by paddle-wheel of steamboat	1
“ from fall of beam	1
“ by leap from railroad car	1
“ by jump from horse	1
“ from circular saw	1
“ received during a fracas	1
“ eye, fall on ice on umbrella	1
Kick by a horse	3
Knocked down by a derrick	2
“ down by a truck	1
“ down by runaway horse	1
“ down by Third Avenue car	1
Leap from car to another while in motion	1
Pushed off Third Avenue car	1
Run down by steamboat while in rowboat	1
Striking head against iron railing	1
Struck by coal bucket	1
“ by bridge while on top train	2
“ by bridge	1
“ by club	1
“ by crane	1
“ by locomotive H. R. R	1
“ by railroad train	1
“ by splinters, falling elevator	1
Trampled upon at falling of roof of St. Andrew's Church	3
Thrown from wagon	1
Tossed by a cow	1
Wounds of foot (punc.)	1
“ of foot from nail	1
“ gunshot	10
“ of hand by a hook	1
“ of hand by a chisel	1
“ of leg while cutting brush	1
“ of orbital plate, from pitchfork	1
“ of thumb, shoeing a horse	1
“ running hand through pane of glass	1
Total	125

KILLED BY VEHICLES IN STREETS.

By steam railroad cars	28
By street railroad cars	31
By fire engine	1
By runaway team	1
By other vehicles	28
Total	89

BURNS AND SCALDS.

Burns, clothes fired by candle	3
“ “ by bon-fire	2
“ “ by grate	4
“ “ by kerosene lamp	1
“ “ by oil lamp	1
“ “ by lighted paper	2
“ “ by lighted stick	1
“ “ by matches	6
“ “ by stove	23
“ “ by wood-fire	1
“ bed-clothes fired by kerosene lamp	1
“ received at conflagration	2
“ received from building on fire	5
“ face and arms (delirium tremens)	1
“ explosion kerosene oil-lamp	1
“ lighting fire with kerosene oil	3

ACCIDENTAL DEATHS, 1875—(*Continued*).

Burns, varnish taking fire	1
" explosion of benzine	1
" from alcohol	2
" fall against stove	1
Scalds by hot coffee	2
" by hot milk	2
" by hot soup	1
" by hot tea	1
" by hot water	39
" escape steam from boiler	1
" explosion steamboat boiler	1
" fall into hot mash	1
" fall into hot ink	1
Total	111

ACCIDENTAL POISON.

Poison used not stated	1
" carbolic acid	1
" ether	1
" hyoscyamus	1
" irritant	1
" kerosene oil	1
" lead	2
" morphine	1
" magnetic zinc	1
" opium	2
" overdose cholera mixture	1
" tincture aconite	2
Total	15

ACCIDENTAL SUFFOCATION.

Manner not stated	5
Overlaid in bed	22
By coal gas	1
" fire	1
" privy vault	1
" fastening belly-band to thigh, around thorax and abdomen	1
" lodgment fish bone in œsophagus	1
" " piece meat in throat	1
" " piece food in throat	1
" muslin tied around neck	1
" lodgment stopple of a feeding bottle in larynx	1
Total	36

DROWNING.

Supposed drowning	162
By fall overboard from vessel	1
" collision	4
" effects of immersion in water	3
" fall into tub of water	1
" fall into tank	1
" being run down by steamboat	1
Total	173

ACCIDENTAL FALLS.

Fall down area	3
" down embankment	5
" down sewer	1
" down stairs	42
" from aerial ladder	3
" astride a board	1
" from awning	1
" from banister	1
" from building	4
" from barrel	1
" from bridge	1
" from bed	1
" from box	1
" from car	1
" from street car	2
" from cart	2
" from chair	1
" from elevator	1
" from fence	1
" from fire-escape	3
" from ladder	2
" from mast	2
" from piazza	1
" from platform	1
" from roof	23
" from rock	2
" from railing	1
" from plank	1
" from scaffold	7
" from shed	1
" from stoop	5
" from H. R. R. platform	1
" from H. R. R. train	1
" from trunk	3
" from tower, Brooklyn Bridge	1
" from wagon	11
" from yard-arm of ship	4
" from yard-arm of steamship	1
" from window	40
" from wash-tub	1
" from vessel, while crossing plank	1
" in street	21
" in room	1
" in yard	3
" in wood yard	1
" into hold of vessel	2
" into hold of steamer	1
" into cellar	3
" into excavation	2
" into tub	1
" on car track	1
" on rock	1
" on ice	1
" on cellar steps	1
" on deck vessel	1
" on iron railing	1
" on floor	3
" on pier (ebrietas)	1

ACCIDENTAL DEATHS, 1875—(*Continued*).

Fall through hatchway	12
" through hatchway of steamship	2
" with a chair	1
" manner not stated	8
Total	254

MISCELLANEOUS CAUSES

Neglect and exposure	22
Frost-bite	2
Inanition, exposure, fall between bales of hay	1
Sudden deaths, cause unascertained	3
Suffocation (ac.) by hanging	1
Total	29

SUICIDES.

By cut, stab	12
" drowning	9
" forcing head through railings of iron bedstead	1
" gunshot	46
" hanging	17
" jumping from height	7
" jumping into machinery	1
" arsenic	3
" chloroform	1
" carbolic acid	1
" eating phosphorus matches	2
" cyanide potassium	3
" corrosive poison	2
" hydrocyanic acid	2
" laudanum	5
" morphine	6
" metallic poison	1
" opium	6
By opium poisoning	1
" paris green	26
" paris green and arsenic	1
" phosphorus	1
" striking head with paving stone	1
Total	155

HOMICIDES.

By abortion	2
" blows	26
" cut, stab	11
" kick	3
" gunshot	14
" being pushed from railroad city car	1
" being pushed and thrown upon stone	1
" being pushed on sidewalk	1
" being struck with a red hot horseshoe	1
" being thrown into privy vault	1
" stab of penis, severing urethra	1
Total	62

JUDICIAL EXECUTIONS.

William Thompson, December 17th	1
Charles Weston, December 17th	1
William Ellis, December 17th	1
Total	3

Certified by coroners as having died from various maladies	2,089
Surgical operations	135

RECAPITULATION.

Accidents and negligence	125
Killed by vehicles in streets	89
Burns and scalds	111
Poisoning accidental	15
Suffocation "	36
Drowning "	173
Falls "	254
Miscellaneous	29
Suicides	155
Homicides	62
Surgical operations	135
Judicial executions	3
Total	1,187

SURGICAL OPERATIONS, 1874.

	DURATION.
Amputation of thigh (gunshot wound of knee joint, pyæmia)	....
Amputation of thigh for osteo sarcoma of femur	....
Amputation of thigh for chronic suppurative arthritis of knee	3 mos.
Amputation of thigh for chronic suppurative arthritis of knee	3 days.
Amputation of thigh for necrosis of knee (phthisis pulmonalis)	3 years.
Amputation of thigh for synovitis of knee and necrosis of thigh (tetanus)	....
Amputation of thigh for gangrene of leg (popliteal aneurism)	16 days.
Amputation of thigh for fistula (epilepsy)	....
Amputation of thigh for gangrene of leg (hæmorrhage)	10 days.
Amputation of thigh for necrosis (pyæmia)	3 weeks.
Amputation of thigh for popliteal aneurism (gangrene)	16 days.
Amputation of leg (fracture of os calcis, contusion and laceration of foot)	....
Amputation of leg (railroad injuries, gangrene)	....
Amputation of leg (ligation of femoral artery for aneurism, dry gangrene)	....
Amputation of knee-joint (pyæmia)	7 days.
Amputation of foot for fracture, (pyæmia)	....
Amputation of arm (run over by a wagon)	....
Amputation of second and third fingers (fracture of metacarpal bones of hand, congestion of lungs)	13 days.
Colotomy for imperforate rectum	....
Colotomy for imperforate rectum (asthenia)	....
Cystotomy for chronic cystitis	....
Excision of cancer of breast	3 mos.
Excision of cancer of breast (pyæmia)	2 years.
Excision of cancer of breast (pneumonia)	5 days.
Excision of cancer of breast	9 mos.
Excision of cancer of breast (scirrhus)	...
Excision of cancer of breast (cancer of liver and axilla)	4 mos.
Excision of cancer of breast	....
Excision of cancer of breast (cancer of axilla)	years.
Excision of cancer of breast (cancer of lungs)	18 mos.
Excision of cancer of breast (cancer of axillary gland)	10 days.
Excision of cancer of breast (sun stroke)	....
Excision of cancer of breast (cancer of tongue), asthenia	....
Excision of fibroid tumor of uterus (septicæmia)	...
Excision of fibroid tumor of uterus (hæmorrhage)	5 years.
Excision of fibroid tumor of uterus	4 years.
Excision of fibroid tumor of uterus	4 years.

	DURATION.
Excision of fibroid tumor of uterus	8 years.
Excision of knee joint for caries and synovitis	8 years.
Excision of hip joint for hip disease (Diarrhœa)	....
Excision of head of humerus for necrosis (septicæmia)	....
Excision of cervix uteri for contraction, curvature and anteflection (dysmenorrhœa, peritonitis)	3 days.
Excision of epithelial cancer of temple (ophthalmitis)	....
Lithotomy for stone in bladder	....
Lithotomy for stone in bladder	....
Lithotomy for stone in bladder (nephritis, pyelitis, pelvic cellulitis)	12 days.
Laryngotomy for constriction of larynx (scrofula)	....
Laryngotomy for œdema glottidis	....
Laryngotomy for lodgment of a piece of coal in the pharynx (broncho-pneumonia)	1 day.
Ligation of femoral artery for popliteal aneurism	2 years.
Ligation for hæmorrhoids (tetanus)	10 days.
Lumbar colotomy for stricture of rectum.	6 weeks.
Medial for removal of calculus (pneumonia, enteritis)	....
Ovariotomy for ovarian tumor (peritonitis)	3½ years.
Ovariotomy for ovarian tumor (inanition)	3 days.
Ovariotomy for ovarian tumor (bronchitis, œdema of lungs	....
Ovariotomy for ovarian tumor	6 days.
Ovariotomy for ovarian tumor (peritonitis)	10 mos.
Ovariotomy for ovarian tumor (septicæmia)	....
Ovariotomy for ovarian tumor (peritonitis)	5 years.
Ovariotomy for ovarian tumor (peritonitis)	7 days.
Ovariotomy for ovarian tumor (pelvic abscess, septicæmia)	21 days.
Ovariotomy for ovarian tumor (peritonitis)	13 hours.
Ovariotomy for ovarian tumor	6 weeks.
Ovariotomy for ovarian tumor	....
Ovariotomy for ovarian cyst	3 mos.
Operation for strangulated inguinal hernia (peritonitis)	7 days.
Operation for strangulated inguinal hernia	5 days.
Operation for strangulated inguinal hernia (miscarriage, peritonitis)	3 mos.
Operation for strangulated inguinal hernia	3 days.
Operation for strangulated inguinal hernia (asthenia)	....

SURGICAL OPERATIONS, 1874—*Continued*).

	DURATION.
Operation for strangulated inguinal hernia (ebrietas)	3 days.
Operation for strangulated femoral hernia (shock)	....
Operation for strangulated femoral hernia (peritonitis)	4 days.
Operation for strangulated femoral hernia.	....
Operation for strangulated femoral hernia (gangrene)	....
Operation for strangulated femoral hernia.	....
Operation for strangulated femoral hernia.	....
Operation for strangulated femoral hernia (pneumonia)	....
Operation for strangulated femoral hernia.	....
Operation for strangulated femoral hernia (peritonitis, fall from pile of coal)	....
Operation for strangulated crural hernia (peritonitis)	36 hours.
Operation for stricture of rectum (peritonitis)	....
Operation for cancerous stricture of œsophagus (erysipelas)	13 days.
Operation for removal of naso-pharyngeal fibroid tumor	2 years.
Operation for removal of necrosis of tibia (pyæmia)	18 days.
Operation for imperforate anus	....
Operation for imperforate anus	....
Operation for imperforate anus (enteritis).	16 days.
Operation for imperforate anus (peritonitis)	....
Operation for imperforate anus	18 hours.
Operation for imperforate anus (peritonitis)	2 days.
Operation for imperforate anus (convulsions)	30 hours.
Operation for imperforate anus	....
Operation for vesico vaginal fistula (hæmorrhage, vomitting)	5 days.
Operation for vesico vaginal fistula	2 weeks.
Operation for periostitis of lower jaw	....
Operation for necrosis of lower jaw (abscess of lungs)	4 days.
Operation for necrosis of lower jaw.	1 month.
Operation for necrosis of femur (asthenia).	....
Operation for necrosis of tibia (pyæmia)	18 years.
Operation for removal of hydatids of uterus	....
Operation for removal of epitheloma of mouth	6 days.
Operation of circumcision (pyæmia)	6 days.
Paracentesis for empyema	....
Paracentesis for empyema (pyæmia)	....
Paracentesis for abscess of liver	3 mos.
Paracentesis for pleurisy (septicæmia)	....
Paracentesis of abdomen for dropsy (peritonitis, dilatation of ventricles of heart)	1½ year.
Perinæorrhaphia for rupture of perineum (parturition)	12 days.
Perineal section	....
Perineal Lithotripsy for calculus (palmar abscess)	....
Puncture of ovarian cyst (peritonitis)	....
Removal of tumor of uterus (septicæmia)	3 mos.
Removal of fibroid tumor of uterus (septicæmia)	2 days.
Removal of fatty tumor of back (gangrene, shock)	4 days.
Removal of malignant tumor of hand (effusion of brain)	....
Removal of prolapse of rectum (peritonitis)	....
Resection of bone of leg for neuroma (pyæmia)	1 month.
Thoracentesis for pyo-thorax (pericolitis)	....
Tracheotomy for diphtheria (septicæmia)	7 days.
Tracheotomy for diphtheria (congestion of lungs)	7 days.
Tracheotomy for diphtheritic croup	8 days.
Tracheotomy for œdema glottidis (bronchitis)	19 days.
Tracheotomy for tumor in larynx (tracheitis, bronchitis)	3 mos.
Tracheotomy for paralysis of larynx (asphyxia)	1 month.
Tracheotomy for croup	7 days.
Tracheotomy for croup (pneumonia)	4 days.
Tracheotomy for croup (pneumonia)	6 days.
Tracheotomy for croup	4 days.
Tracheotomy for croup	9 days.
Tracheotomy for croup	2½ days.
Tracheotomy for croup	9 days.
Tracheotomy for croup (apnœa)	5 days.
Tracheotomy for croup (pneumonia).	2 days.
Tracheotomy for croup (toxæmia)	5 days.
Tracheotomy for croup (bronchitis)	6 days.
Tracheotomy for croup (laryngitis)	10 days.
Tracheotomy for croup (convulsions)	20 days.
Tracheotomy for croup	2 days.
Urethrotomy-internal, for stricture (suppression of urine, septicæmia)	2 days.
Urethrotomy for stricture of urethra (cystitis, pneumonia)	....

Total, 142.

SURGICAL OPERATIONS, 1875.

	DURATION.
Amputation (double) of leg, gangrene of foot (pyæmia)	7 days.
Amputation of arm, for syphilic necrosis of bones of the arm and hand (erysipelas, gangrene, pyæmia)	....
Amputation of arm for necrosis of ulna	....
Amputation of foot for injuries by jump from street car	....
Amputation of foot for caries of tarsal bone (pyonephrosis, œdema of lungs)	....
Amputation of feet for frost-bite (septicæmia)	....
Amputation of hand for eroding ulcer (asthenia)	....
Amputation of leg for necrosis of tibia	3 mos.
Amputation of thigh for tuberculosis of knee-joint (paralysis of heart)	....
Amputation of thigh, for abscess of knee-joint	7 weeks.
Amputation of thigh (septicæmia)	10½ mos.
Amputation of thigh for laceration of leg, by being run over by Third avenue car.	3 days.
Amputation of penis for epithelioma of prepuce	....
Craniotomy, child-birth	....
Craniotomy, child-birth (malformation of pelvis)	4 days.
Craniotomy, child-birth (face presentation, shock)	....
Circumcision	...
Circumcision (erysipelas)	6 days.
Elytrorrhaphy for procedentia uteri (tetanus)	18 days.
Elephantiasis of labia magna (septicæmia).	....
Enucleation of eye for melano sarcoma (meningitis)	3 years.
Excision of breast for cancer (collapse)	18 mos.
Excision of tibia for dislocation, forcible ejection from room (erysipelas)	....
Excision of tongue and jaw for cancer of tongue (shock)	20 hours.
Exsection of elbow (asthenia)	....
Exsection of epithelial cancer of tongue (bronchitis, pneumonia)	....
Exsection of half of lower jaw for encephaloid cancer (asthenia)	....
Gastronomy of obstruction of intestines	....
Hysterotomy (parametritis) ?	3 weeks.
Laryngotomy for memb. croup	4 days.
Ligation of external iliac artery for femoral aneurism	3 days.
Lithotomy (pyo-nephrosis)	....
Lithotomy (peritonitis)	....
Lithotomy for versical calculus (pelvic cellulitis)	3 weeks.
Lithotomy for calculus (pneumonia)	12 days.
Lithotomy for stone in bladder (cystitis, peritonitis)	2 mos.
Lithotomy for stone in bladder (pneumonia)	8 days.
Metro-Hæmatocele, occlusion of vagina (metro-peritonitis)	....
Œsophagotomy for erysipelas (asthenia).	....
Ovariotomy, ovarian tumor	....
Ovariotomy, ovarian tumor	....
Ovariotomy, ovarian tumor	....
Ovariotomy, ovarian tumor	2¼ years.
Ovariotomy, ovarian tumor (peritonitis).	48 hours.
Ovariotomy, ovarian tumor (peritonitis).	4 years.
Ovariotomy, ovarian tumor (peritonitis).	....
Ovariotomy, ovarian tumor (hæmorrhage)	9 hours.
Ovariotomy, ovarian tumor (septicæmia)	....
Ovariotomy (peritonitis)	35 hours.
Ovariotomy (peritonitis)	28 hours.
Ovariotomy (peritonitis)	48 hours.
Ovariotomy (septicæmia)	....
Ovariotomy, ovarian cyst (peritonitis)	....
Ovariotomy, ovarian cyst (peritonitis)	....
Ovariotomy for coloid of ovary (asthenia)	5 mos.
Ovariotomy for polycystic ovarian tumor	20 hours.
Operation for umbilical hernia	....
Operation for strangulated hernia	....
Operation for strangulated inguinal hernia	...
Operation for strangulated inguinal hernia (peritonitis)	....
Operation for strangulated inguinal hernia (peritonitis)	....
Operation for strangulated inguinal hernia (peritonitis)	36 hours.
Operation for strangulated inguinal hernia (gangrene of intestines)	3 days.
Operation for strangulated femoral hernia (asthenia)	....
Operation for strangulated femoral hernia (asthenia)	4 days.
Operation for strangulated femoral hernia (peritonitis gangrene of intestines)	....
Operation for strangulated femoral hernia (shock)	....
Operation for anchylosis of knee (shock).	5 days.
Operation for dilatation of cervix uteri (peritonitis)	24 hours.
Operation for division of cervix uteri for obstructive dessmenorrhœa (pelvic abscess, pelvic cellulitis)	10 wks.
Operation for fistula in ano (erysipelas)	....
Operation (harelip)	....
Operation for imperforate anus	5 days.
Operation for imperforate anus (asthenia)	....
Operation for laceration of cervix uteri during child-birth (rupture of pelvic abscess, pelvic cellulitis)	3 wks.

SURGICAL OPERATIONS, 1875—(*Continued*).

	DURATION.
Operation for laceration of cervix uteri (Bright's disease, uræmia)	4 days.
Operation for lumbar colotomy for stricture of transverse colon	1 year.
Operation for removal of aneurism of femoral artery (nephritis, ulcer of stomach, inanition)	....
Operation for removal of abdominal tumor (exhaustion)	4 mos.
Operation for removal of cystic tumor of head (inanition)	....
Operation for removal of fibro cystic tumor of uterus (inanition)	3 years.
Operation for removal of cataract (asthenia)	....
Operation for removal of cancer of jaw	2 years.
Operation for removal of cancer of uterus (pyæmia)	8 mos.
Operation for removal of epithelial cancer of clitoris	....
Operation for removal of epithelial cancer of cervix uteri	....
Operation for removal of epithelial cancer of face (pneumonia, ebrietas)	....
Operation for removal of epithelial cancer of genital organs and cancer of inguinal gland (pyæmia)	8 mos.
Operation for removal of encephaloid cancer of thigh (asthenia)	....
Operation for removal of orbital cancer (syphilis, diarrhœa)	....
Operation for removal of schirrus cancer of breast	3 mos.
Operation for removal of enchondroma of mama	....
Operation (Cæsarian) for removal of fibroid tumor of uterus (peritonitis)	31 hours.
Operation for removal of fibroid tumor of uterus (exhaustion)	....
Operation for removal of fibroid tumor of uterus (metro-peritonitis, uræmia)	1 week.
Operation for removal of fibroma of uterus (exhaustion)	1 year.
Operation for removal of fungoid granulation (peritonitis)	....
Operation for removal of lower part of tibia for osteo haresis and osteo sclerosis	....
Operation for removal of prolapse of vagina (septicæmia)	13 days.
Operation for removal of neuroma of hand (erysipelas)	22 days.
Operation for removal of polypus of uterus (flooding, anæmia)	½ day.
Operation for removal of sarcoma of face (hæmorrhage)	....
Operation for removal of parinæum (tetanus, child-birth)	12 days.
Paracentisis for dropsy (peritonitis, disease of heart)	....
Perineal section, fistula of perinæum (uræmia)	....
Perineal section, for rupture of uretha, extravasation of urine (pyæmia)	14 days.
Resection of elbow joint for caries of humerus (nephritis septicæmia)	4 mos.
Resection of wrist joint for caries (pyæmia)	10 days.
Tracheotomy for croup	....
Tracheotomy for croup (œdema of lungs)	....
Tracheotomy for croup (pneumonia, œdema of lungs)	6 days.
Tracheotomy for membraneous croup	4 days.
Tracheotomy for membraneous croup (pneumonia)	....
Tracheotomy for membraneous croup (broncho-pneumonia, cyanosis)	....
Tracheotomy for diphtheretic croup	4 days.
Tracheotomy for laryngeal croup	....
Tracheotomy for diphtheria	4 days.
Tracheotomy for diphtheria	11 days.
Tracheotomy for diphtheria (bronchitis)	7 days.
Tracheotomy for diphtheria (paralysis)	2 days.
Tracheotomy for diphtheria (scarlatina)	....
Tracheotomy for laryngitis	5 days.
Tracheotomy for acute laryngitis	3 days.
Tracheotomy for diphtheretic laryngitis	3 days.
Tracheotomy for diphtheretic laryngitis	9 days.
Tracheotomy for œdema of larynx (pharyngitis, pneumonia)	....
Thoracentesis for empyema	4½ mos.
Thoracentesis for pneumo-thorax	5 mos.
Thoracentesis for pyo-pneumo-thorax	2 years.
Urethrotomy, external for stricture and extravasation of urine (uræmia)	9 years.
Urethrotomy, external for stricture retention of urine (uræmia)	31 hours.
Urethrotomy, external and internal (cystitis pyelitis)	....
Urethrotomy, external and internal, for stricture of urethra (pneumonia)	2 years.
Urethrotomy, internal for strictures of urethra, extravasation of urine into scrotum (erysipelas)	7 days.
Urethrotomy, perineal for stricture (second hæmorrhage)	....

Total, 135.

DEATHS BY SUICIDE IN THE YEAR 1874.

Date of Death.		Age.	Condition.	Occupation.	Nativity.	Means Used.
January	2	34	Married	Druggist	United States	Laudanum.
“	11	30	Single	Silver Plater	England	Cyanide of Potassium.
“	11	24	“	Machinist	Germany	Cutting his wrist.
“	16	40	“	Merchant	New York	Gunshot.
“	20	50	Married	Cartman	Ireland	Incised wound of throat.
“	24	20	Single		New York	Laudanum.
“	27	11		School Boy	United States	Hanging.
February	1	63	Widowed	Housekeeper	England	Oxalic Acid.
“	2	35	Married	Ship Carpenter	Ireland	Poison.
“	4	38	“	Housekeeper	Germany	Poison.
“	4	30	“		New York	Oil of Tansy.
“	15	35	“	Laborer	Italy	Cutting throat.
“	20	40	“		South Carolina	Gunshot.
“	21	25	Single	Actor	United States	Gunshot.
“	25	28	“		Germany	Hanging
March	1	22	Married	Porter	United States	Leap from window.
“	2	45	“	Laborer	Ireland	Gunshot.
“	3	52	Single	Hatter	Italy	Gunshot.
“	4	22	“		United States	Leap from window.
“	9	49	Married	Housekeeper	“	Severing jugular artery.
“	10	55	“	“	England	Drowning.
“	13	22	“	“	Germany	Strychnine.
“	14	41	“	Waiter	Maryland	Leap from window.
“	15	25	Single	Teacher	Germany	Opium.
“	21	41	Married	Bookkeeper	“	Morphia and Ether.
“	22	60		Shoemaker	Ireland	Cutting throat.
“	22	63	Married	Laborer	“	Hanging.
“	28	19		Cigar Maker	Bohemia	Gunshot.
“	31	44	Widowed	Peddler	Germany	Phosphorus.
April	3	26	Married		“	Arsenic.
“	8	15	Single	Office Boy	New York	Gunshot.
“	8	29	“	Housekeeper	United States	Hanging.
“	9	48	Married	Porter	England	Laudanum.
“	9	28	“	Housekeeper	“	Cyanide of Potassium.
“	10	57	“	Sailor	“	Opium.
“	16	20	Single	Servant	Germany	Oxalic acid.
“	22	31	“	Journalist	North Carolina	Laudanum.

DEATHS BY SUICIDE IN THE YEAR 1874—(*Continued*).

Date of Death.		Age.	Condition.	Occupation.	Nativity.	Means Used.
April	23	45	Married....	Cabinet Maker.......	Germany........	Gunshot.
"	27	64	....	....	Ireland..........	Incised wound of larynx.
"	28	45	Married....	Butcher.............	Germany........	Paris Green.
"	23	..	....	....	Unknown........	Gunshot.
May	1	50	Married....	Baker	Germany	Hanging.
"	1	45	....	....	Unknown........	Gunshot.
"	2	30	Single......	Coachman...........	Germany........	Hanging.
"	2	39	Married....	....	"	Magnetic rat poison.
"	4	23	" ...	....	United States....	Leap from window.
"	8	40	Widowed...	Bricklayer..........	Ireland..........	Leap from window.
"	8	40	Married....	Tailor	Germany........	Acid.
"	9	39	" ...	Peddler.............	"	Cutting throat.
"	10	22	Single......	....	"	Hanging.
"	10	24	"	Engineer............	England.........	Morphine.
"	13	28	....	....	Germany........	Poison.
"	13	50	Married....	Seamstress..........	"	Hanging.
"	18	65	....	....	New York.......	Hanging.
"	19	51	....	Peddler.............	Germany........	Cutting throat.
"	23	58	Single......	Laborer	....	Cutting throat.
"	24	54	"	Washing............	Germany...	Poison.
"	24	47	Widowed...	Fireman.............	"	Drowning.
"	25	60	Married....	Laborer.............	"	Cutting throat.
"	28	33	" ...	....	"	Hanging.
"	28	43	" ...	....	France	Inhaling charcoal gas.
"	28	39	Single......	Merchant............	New York.......	Cutting throat.
"	29	35	Married....	....	Italy	Gunshot.
"	30	47	" ...	Merchant............	Germany........	Paris Green.
"	30	36	Single......	Music Teacher.......	"	Gunshot.
June	1	42	Married....	Tinsmith.............	"	Cutting throat.
"	1	26	Single......	Salesman	"	Hanging.
"	2	37	Married....	Tailor................	United States....	Cutting throat.
"	3	49	" ...	....	Germany........	Rat poison.
"	3	44	" ...	....	"	Paris Green.
"	3	45	Widowed...	Bookbinder..........	Canada..........	Cutting throat.
"	4	52	Married....	Laborer	Germany.......	Paris Green.
"	5	28	Single......	Bookbinder..........	"	Laudanum.
"	6	32	....	Physician............	Canada..........	Opium.

DEATHS BY SUICIDE IN THE YEAR 1874—(*Continued*).

Date of Death.		Age.	Condition.	Occupation.	Nativity.	Means Used.
June	7	83	Widowed..	....	Germany........	Drowning.
"	10	27	Single......	Porter..............	"	Hanging.
"	12	52	"	Carpenter...........	Scotland.........	Drowning.
"	13	35	"	Hospital Orderly.....	Germany........	Opium.
"	17	71	....	Tailor..............	England.........	Gunshot.
"	17	35	Single.	Dry Goods..........	Germany........	Tincture of Opium.
"	20	56	Married....	Saloonkeeper.........	"	Gunshot.
"	24	40	Single......	Artificial Eye Maker.	France..........	Corrosive poison.
"	24	33	"	Peddler.............	Germany........	Sulphuric acid.
"	28	51	"	Apothecary..........	Scotland.........	Opium.
July	1	19	Married....	....	New York.......	Paris Green.
"	2	37	Single......	Tin Roofer...........	Ireland..........	Paris Green.
"	3	36	"	....	United States....	Hydrate of Chloral.
"	7	24	....	Plumber.............	New York.......	Drowning.
"	7	18	Single......	Peddler.............	Germany........	Hanging.
"	8	35	"	Machinist............	"	Poison.
"	9	40	Married....	Boarding-house keeper	"	Gunshot.
"	9	33	" ...	Jeweler..............	New Jersey......	Laudanum.
"	10	35	" ...	Gilder...............	Scotland.........	Cutting throat.
"	10	47	Widowed...	Compositor..........	New York.......	Leap from window.
"	12	45	Married....	Laborer.............	Ireland..........	Paris Green.
"	20	29	" ...	Domestic............	"	Paris Green.
"	20	..	....	....	Unknown........	Tincture of Opium.
"	21	49	Single......	Saloon-keeper........	Germany........	Gunshot.
"	23	62	Married....	Laborer..............	Ireland..........	Hanging.
"	24	29	" ...	Butcher..............	Germany........	Gunshot.
"	25	24	Single......	....	Ireland..........	Hanging.
"	26	24	"	....	United States....	Hydrate of Chloral.
August	2	53	"	....	Germany........	Immersion.
"	4	36	....	....	Belgium..........	Drowning.
"	6	32	Single......	Druggist............	Poland...........	Hanging.
"	11	51	....	Tinsmith............	New York.......	Paris Green.
"	11	51	Married....	Housekeeper.........	Germany........	Hanging.
"	12	..	Single.....	Seaman.............	"	Gunshot.
"	13	27	....	....	United States....	Chloroform.
"	13	60	Married....	....	Ireland..........	Drowning.
"	14	45	" ...	Saloon-keeper........	Germany........	Gunshot.

DEATHS BY SUICIDE IN THE YEAR 1874—(*Continued*).

Date of Death.		Age.	Condition.	Occupation.	Nativity.	Means Used.
August	14	50	Married....	Carpenter............	Germany........	Gunshot.
“	19	28	“ ...	Agent................	Ohio............	Laudanum.
“	22	50	“ ...	Waiter..............	Ireland..........	Paris Green.
	25	53	“ ...	....	Germany........	Gunshot.
	26	54	Widowed...	....	United States....	Cutting throat.
“	30	66	Married....	Tailor...............	Germany........	Gunshot.
“	31	28	“ ...	Butcher..............	“	Hanging.
September	2	43	“ ...	Laborer..............	Ireland..........	Drowning.
“	3	40	“ ...	Agent................	South Carolina...	Laudanum.
“	4	45	“ ...	Tailor...............	Germany........	Oxalic acid.
“	4	44	“ ...	Watchman..........	“	Drowning.
“	5	36	“ ...	Housekeeper.........	“	Morphine.
“	10	55	“ ...	Watchman...........	“	Hanging.
“	12	29	“ ...	....	New York.......	Gunshot.
“	12	35	....	....	Unknown........	Hanging.
“	12	45	....	....	“	Paris Green.
“	12	38	Married....	....	Germany........	Arsenic.
“	13	48	....	Carpenter...........	....	Gunshot.
“	15	63	Married....	Weaver..............	Germany........	Hanging.
“	15	62	Single......	....	France.........	Leap from window.
“	16	..	....	....	Unknown........	Hanging.
“	20	39	Married....	Hatter...............	New York.......	Butting head against bars of cell.
“	20	46	Widowed...	Housekeeper.........	Ireland..........	Paris Green.
“	24	52	Married....	“	Germany........	Paris Green.
“	29	38	Single......	....	Poland..........	Drowning.
“	30	57	Married....	Painter..............	Germany........	Paris Green.
October	2	48	....	Tailor................	“	Drowning.
“	3	27	Single......	Salesman............	United States....	Laudanum.
“	3	29	“	Sailor................	France..........	Laudanum.
“	9	87	Married....	....	Pennsylvania.....	Paris Green.
“	13	24	Single......	Engraver............	Germany........	Hanging.
“	14	56	Widowed...	Agent................	“	Gunshot.
“	14	42	Married....	Cigar Maker.........	“	Hanging.
“	15	45	“ ...	Shoemaker...........	“	Paris Green.
“	18	68	Widowed...	....	“	Paris Green.
“	30	38	Single......	Saloon-keeper........	Belgium.........	Hanging.
November	3	42	Married....	Lawyer..............	New York.......	Cutting throat.

DEATHS BY SUICIDE IN THE YEAR 1874—(*Continued*).

Date of Death.	Age.	Condition.	Occupation.	Nativity.	Means Used.
November 3	25	Single	Driver	Germany	Gunshot.
“ 4	34	Married	Dentist	Massachusetts	Gunshot.
“ 4	36	Single	....	United States	Paris Green.
“ 5	52	“	Butcher	Germany	Gunshot.
“ 7	20	“	Pocketbook Maker	“	Gunshot.
“ 11	24	Married	Florist	New York	Gunshot.
“ 13	40	“	Clerk	Ireland	Paris Green.
“ 13	43	“	Laborer	“	Cutting throat.
“ 20	34	“	Housekeeper	Canada	Hanging.
“ 21	54	“	Laborer	Germany	Hanging.
“ 23	65	“	Merchant	“	Hanging.
“ 24	30	“	....	“	Gunshot.
“ 25	35	Single	Barber	“	Hanging.
“ 28	49	....	....	New York	Corrosive Sublimate.
“ 28	45	Single	....	Germany	Narcotic poison.
“ 30	34	Married	Telegraph Operator	New Jersey	Gunshot.
December 1	38	“	Housekeeper	Germany	Gunshot.
“ 7	37	Widowed	Domestic	“	Paris Green.
“ 9	33	Married	....	“	Paris Green.
“ 13	31	Single	Clerk	Illinois	Gunshot.
“ 16	32	Married	“	Germany	Strychnine.
“ 18	40	“	Wood Turner	“	Paris Green.
“ 24	30	“	Housekeeper	Ireland	Drowning.
“ 24	28	Single	Seaman	Nova Scotia	Incised wound of neck.
“ 25	60	Widowed	....	Germany	Cutting wrist.
“ 25	39	“	Housekeeper	Ireland	Hanging.
“ 26	50	“	Tailor	Germany	Laudanum.
“ 27	53	Single	Editor	“	Hanging.
“ 27	44	Married	Laborer	“	Gunshot.
“ 28	36	“	....	New York	Gunshot.
“ 29	21	“	....	“	Paris Green.
“ 29	38	Single	Jeweler	Denmark	Cyanide of Potassium.

NATIVITY.

Belgium	2	Italy	3
Bohemia	1	Poland	2
Canada	3	Nova Scotia	1
Denmark	1	Scotland	3
England	8	United States	42
France	4	Unknown	9
Germany	82		
Ireland	20	Total	180

OCCUPATIONS.

Actor	1	Lawyer	1
Agents	3	Machinists	2
Boarding-house Keeper	1	Merchants	5
Baker	1	Office Boy	1
Barber	1	Oculist	1
Butchers	4	Painter	1
Bricklayer	1	Peddlers	5
Bookbinders	2	Physician	1
Carpenters	5	Porters	3
Cigar Makers	2	Plumber	1
Clerks and Salesmen	7	Pocketbook Maker	1
Compositor	1	Saloon-keepers	4
Dentist	1	Seamstress	1
Domestics	3	Seamen and Sailors	4
Drivers, Carmen, etc	3	Shoemakers	2
Druggists	3	School Boy	1
Engineer	1	Tailors	7
Engraver	1	Tinsmiths	3
Florist	1	Teachers	2
Fireman	1	Turner	1
Gilder	1	Waiters	2
Hatters	2	Watchmen	2
Housekeepers	15	Weaver	1
Hospital Employee	1	Washerwoman	1
Jewelers	3	Not stated	48
Journalists	2		
Laborers	12	Total	180

Single, 55 ; Married, 88 ; Widowed, 15 ; Not stated, 22—Total, 180. Males, 140 ; Females, 40.

DEATHS BY SUICIDE IN THE YEAR 1875.

DATE.	SEX.	AGE.	CONDITION.	OCCUPATION.	NATIVITY.	MEANS USED.
Jan. 5	Male	19			Germany	Gunshot.
" 6	"	39	Married		"	Cutting throat.
" 8	"	43	Single		Switzerland	Gunshot.
" 8	Female	66	"		Ireland	Paris Green.
" 9	"	18	Married		Germany	Eating phosphorus from matches.
" 10	Male	38	"	Carpenter	"	Paris Green.
" 11	"	25	Single		Ireland	Carbolic acid.
" 13	"	40	Married		Germany	Gunshot.
" 14	"	56	"	Express	United States	"
" 15	"	57	"		Germany	Paris Green.
" 19	"	31	"		Ireland	Cutting throat.
" 21	"	58	"	Shoemaker	Germany	Hanging.
" 21	"	59	Single	Bar-keeper	"	Gunshot.
" 21	"	32	Married	Laborer	Ireland	Corrosive poison.
" 22	Female	23	Single		Germany	Paris Green.
" 23	Male	27	"	Carpenter	France	Jump from window.
" 25	"	45	Married	Carman	New Jersey	Laudanum.
" 27	"	33	"	Fruit Dealer	Germany	Gunshot.
" 30	"	34	"	Druggist	"	"
Feb. 20	Female	60	Widowed		Ireland	Paris Green.
" 21	Male	30	Married	Tailor	Germany	Hanging.
" 25	"	20	Single	Druggist	Sweden	Hydrocyanic acid.
" 28	"	40	Married	Cook	Germany	Gunshot.
Mar. 10	"	59	"	Tailor	"	Hanging.
" 13	"	41	"	Plumber	Scotland	Jumping into machinery.
" 16	"	30	"	Waiter	Germany	Hanging.
" 16	"	68	"		New York	Gunshot.
" 19	"	43		Manufacturer	France	Drowning.
" 19	"	16			England	Gunshot.
" 25	"	48		Gardener	Germany	Corrosive poison.
" 26	Female	50		Seamstress	United States	Paris Green.
" 30	Male	43		Piano Maker	Germany	Gunshot.
April 1	"	50	Married	City Weigher	New York	"
" 5	"	37		Book-keeper	Germany	Morphine.
" 6	"	26		Waiter	New York	Hanging.
" 8	"	57	Married	Umbrella Maker	Germany	"
" 13	"	50				Metallic poison.

DEATHS BY SUICIDE IN THE YEAR 1875—(*Continued*).

DATE.	SEX.	AGE.	CONDITION.	OCCUPATION.	NATIVITY.	MEANS USED.
Apr. 14	Male	19	....	....	Germany	Paris Green.
" 14	"	41	....	Liquor Dealer	United States	Gunshot.
" 22	"	40	Married	....	"	"
" 22	"	50	....	Waiter	Switzerland	"
" 22	"	51	Married	Porter	Germany	Hanging.
" 23	"	76	"	Sup't S. S. Line	Connecticut	Gunshot.
" 25	"	35	....	....	Germany	"
May 5	"	52	Married	....	"	Cutting throat.
" 2	"	28	....	Waiter	"	Laudanum.
" 9	"	25	....	Clerk	"	Hanging.
" 11	Female	84	Widowed	Housekeeper	"	Drowning.
" 11	Male	..	....	....	....	Gunshot.
" 13	"	43	Married	Physician	Ireland	Opium.
" 13	"	33	....	Merchant	Maine	Gunshot.
" 14	Female	15	....	Servant	Ireland	Arsenic.
" 16	"	20	....	Seamstress	New York	Drowning.
" 16	Male	59	....	Photographer	Germany	Morphine.
" 17	"	26	Married	....	England	Hanging.
" 17	"	45	....	Wood Carver	Germany	Opium.
" 22	"	..	....	....	....	Drowning.
" 23	"	55	Married	Coachman	Ireland	Arsenic.
" 27	"	35	....	Salesman	"	Cutting throat.
" 28	Female	32	Married	....	Germany	Paris Green.
" 29	Male	45	"	Cigar Maker	Cuba	Gunshot.
" 29	Female	20	....	....	United States	Jumping from window.
" 31	Male	37	....	Saloon-keeper	Germany	Cutting throat.
June 1	"	76	....	....	"	Gunshot.
" 1	"	50	Married	Waiter	"	Drowning.
" 2	"	53	"	....	"	Gunshot.
" 4	Female	21	....	....	"	Eating tops of matches.
" 4	Male	38	....	U. S. Army Officer	United States	Cutting throat.
" 5	"	34	Married	Clerk	Germany	Chloroform.
" 6	"	49	"	Tailor	"	Paris Green.
" 10	"	26	....	Editor	Connecticut	Gunshot.
" 10	Female	40	Widowed	Seamstress	Ireland	Paris Green.
" 12	Male	37	....	....	United States	Cutting throat.
" 14	"	57	Married	Shoemaker	Germany	Hanging.

DEATHS BY SUICIDE IN THE YEAR 1875—(*Continued*).

DATE.	SEX.	AGE.	CONDITION.	OCCUPATION.	NATIVITY.	MEANS USED.
June 14	Female	26	Married	Housekeeper	Germany	Paris Green.
“ 20	Male	39				Drowning.
“ 21	Female	22			Rhode Island	Opium.
“ 21	“	30		Housekeeper	Germany	Drowning.
“ 23	Male	45			“	Gunshot.
“ 23	Female	40	Married		New York	Morphine.
“ 24	Male	33	Widowed		Switzerland	Gunshot.
“ 25	“	52			New York	Paris Green.
“ 25	Female	67			Pennsylvania	Opium.
“ 25	Male	55		Shoemaker	Germany	Beating his head with paving stone.
“ 25	“	57	Married	Basketmaker	“	Paris Green.
“ 26	“	38	“	Journalist	Georgia	Laudanum.
“ 29	“	21		Printer	New York	Arsenic.
July 2	“	43	Married	Saloon-keeper	Germany	Cutting throat.
“ 6	“	38	“	Tailor	“	Gunshot.
“ 7	“	55	“	Saloon-keeper	“	“
“ 8	Female	43	“		Ireland	Paris Green.
“ 8	Male	46	“	Carpenter	Germany	Gunshot.
“ 8	Female	47	“	Housekeeper	England	Paris Green.
“ 9	“	35	“	Servant	New York	“
“ 10	Male	40	Widowed	Upholsterer	Germany	Forcing his head between rails of an iron bedstead.
“ 10	“	30			“	Cutting throat.
“ 11	“	39	Married	Cigar Maker	“	Hanging.
“ 14	“	33	Single	Hotel-keeper.	New York	Gunshot.
“ 15	“	50	Widowed	Printer	Scotland	Paris Green.
“ 17	“	48	Married	Physician	New York	Cyanide of Potassium.
“ 18	“	32	Single		United States	Cutting throat.
“ 21	“	73	Married		Germany	Gunshot.
“ 21	“	49	“	Agent	United States	Morphine.
“ 25	“	37	“	Confectioner	Germany	Paris Green.
“ 25	“	25	Single	Sailor	Holland	Gunshot.
“ 26	“	45	Married	Merchant	New Hampshire	Gunshot.
Aug. 2	“	42			Germany	Hanging.
“ 3	“	70	Widowed	Saloon-keeper	Switzerland	Hanging.
“ 4	“	22		Clerk	Germany	Morphine.
“ 8	Female	38	Married	Housekeeper	Ireland	Jump from window.
“ 8	Male	28	Single	Butcher	New York	Gunshot.

DEATHS BY SUICIDE IN THE YEAR 1875—(*Continued*).

DATE.	SEX.	AGE.	CONDITION.	OCCUPATION.	NATIVITY.	MEANS USED.
Aug. 8	Male	31	Married	Peddler	Germany	Paris Green.
“ 12	“	44	Widowed	Painter	“	Paris Green.
“ 18	Female	79	“		“	Immersion.
“ 21	“	20		Tailoress	Ireland	Paris Green.
“ 21	Male	40	Married		Germany	Gunshot.
“ 26	“	50	“	Merchant	Connecticut	Gunshot.
“ 26	“	21			Germany	Cutting throat.
Sept. 1	“	39	Married	Boatman	Ireland	Opium.
“ 1	“	57	“	Broker	Denmark	Cyanide of Potassium.
“ 2	“	42		Salesman	New York	Laudanum.
“ 3	Female	25	Single		United States	Hanging.
“ 3	“	47	Married	Housekeeper	Germany	Jump from window.
“ 5	Male	22	Single	Shoe cutter	California	Gunshot.
“ 6	“	16		Clerk	New York	Morphine.
“ 9	Female	38	Married		Germany	Phosphorus.
“ 11	Male	48	“	Locksmith	Switzerland	Cutting throat.
“ 26	“	37	“	Barber	Germany	Laudanum.
“ 30	“	51	“	Porter	“	Gunshot.
“ 27	Female	32	Single	Seamstress	New York	Hanging.
Oct. 2	Male	53	Married	Saloon-keeper	Germany	Gunshot.
“ 3	“	45	“		“	Paris Green.
“ 6	“	..			Unknown	Hydrocyanic acid.
“ 6	Female	45			England	Opium.
“ 10	Male	70	Married		Ireland	Paris Green.
“ 19	“	40	Single	Butcher	New York	Gunshot.
“ 19	Female	60	Married		Germany	Hanging.
“ 24	Male	45	Single	Druggist	“	Morphine.
“ 28	“	20		Lithographer	New York	Jumping from roof.
Nov. 5	“	56	Widowed		“	Gunshot.
“ 5	“	30			Unknown	Gunshot.
“ 6	“	57	Married	Hotel-keeper	Ireland	Gunshot.
“ 8	“	51	“	Shoe fitter	Germany	Paris Green and Arsenic.
“ 9	Female	20	Single		Virginia	Gunshot.
“ 10	Male	52		Nurse	England	Opium.
“ 16	“	30	Married	Cabinet Maker	Germany	Paris Green.
“ 16	“	35	“	Bookkeeper	England	Jumping from roof.
“ 30	“	45	“	“	Massachusetts	Cyanide of Potassium.

DEATHS BY SUICIDE IN THE YEAR 1875—(*Continued*).

DATE.	SEX.	AGE.	CONDITION.	OCCUPATION.	NATIVITY.	MEANS USED.
Dec. 12	Male	30	Single	Baker	Germany	Gunshot.
“ 17	“	40	“	Waiter	Ireland	Paris Green.
“ 27	“	55	Married	Blacksmith	Germany	Drowning.
“ 28	Female	20	Single	Servant	Ireland	Jump from window.
“ 30	Male	29	Married	Agent	New York	Gunshot.
“ 30	“	16	Single	Butcher	“	Hanging.
“ 31	“	31	Married		Ireland	Gunshot.

NATIVITY.

Cuba	1
Denmark	1
England	6
France	2
Germany	70
Holland	1
Ireland	19
Scotland	2
Sweden	1
Switzerland	5
United States	41
Unknown	6
Total	155

OCCUPATIONS.

Agents	2
Barber	1
Baker	1
Basket Maker	1
Bar-keeper	1
Blacksmith	1
Book-keepers	3
Boatman	1
Broker	1
Butchers	3
Carpenters	3
Cabinet Maker	1
Carman	1
Clerks	5
City Weigher	1
Cigar Makers	2
Coachman	1
Cook	1
Confectioner	1
Druggists	3
Editors	2
Expressman	1
Fruit Dealer	1
Gardener	1
Housekeepers	6
Hotel-keepers	2
Laborer	1
Liquor Dealer	1
Lithographer	1
Locksmith	1
Manufacturer	1
Merchants	3
Nurse	1
Painters	2
Peddler	1
Piano Maker	1
Porters	2
Printer	1
Plumber	1
Physicians	2
Photographer	1
Sailor	1
Saloon-keepers	5
Salesman	1
Servants	3
Seamstresses	5
Shoemakers	3
Shoe Cutters and Fitters	2
Superintendent Steamship Line	1
Tailors	4
Umbrella Maker	1
Upholsterer	1
United States Army Officer	1
Waiters	6
Wood Carver	1
Other occupations	53
Total	155

Single, 21; Widowed, 10; Married, 74; Not stated, 50—Total, 155.

NOTES ON THE CHIEF CAUSES OF DEATH.

The fact which first commands our notice in the mortuary statistics of this city is that which shows the mortality of children under 5 years of age to be excessive, and which proves that the remarkable fluctuations in the death-rate of the population, from week to week and from season to season, occur almost wholly as a result of ceaseless and excessive variations in the number of children who die at that tender age. An inspection of the chart which faces this page exhibits this statistical fact in a graphic manner and shows certain particulars concerning the causes which vary most widely in the mortality of children. The charts which are placed before the statistical abstracts exhibit other evidence which enters into the detailed statements of the abstracts themselves.

The 13,956 children who died under 5 years of age in 1874, and the 14,848 deaths at the same tender age in 1875, had an unwritten history of *causes* of premature taking off which would throw much light upon the registered statistics and names of diseases which are set forth in these tabulated abstracts. While numerous circumstances of tenements and families may have a record of sanitary report, complaint and official orders filed as a portion of the history of causes of the excessive mortality, and especially of the effort to overcome and diminish them, there remain numerous other and greater sources of this waste of child-life to be treated as social and economic facts which are not directly within the jurisdiction of public health authority.

The question whether the sources of excessive infant mortality in this city, are or can be measurably controlled, is receiving a more favorable solution than the public well understands. The ten years of incessant efforts by the sanitary authorities in this city have already made a positive impression upon certain sources of general mortality, and even of infant mortality, which may safely be entered upon its records. The statistical table and diagram in which the proportionate mortality in all the living inhabitants at each age is shown (see page 270 and its facing diagram), present the fact that the rate of mortality in the children of the city in 1875 was equal to 115.84 in every 1,000 of them. This is the death toll that the children under 5 years old paid in one of the most trying years of this decennium in which sanitary improvements have been progressing. In the year 1865, which was a generally favorable one to children, the census found living in the city 95,022 children under 5 years old ; and the mortuary records show that 12,802 of them died in that year ; this is equal to 134.72 deaths in every 1,000 children under 5 enumerated in the census in 1865.

Numerous other facts can be adduced to prove that a saving agency has been at work, and that the lives of young children are more secure, and that the health and welfare of families have gained, and are gaining by the operation of sanitary regulations and the influence of sanitary works. If social and domestic improvements are keeping pace, as they always do, in the advancement of sanitary improvements, their credit even in this gain to life is large. It was not safe to promise much gain in this direction at the beginning of sanitary improvements ten years ago, because the crowding and other evils of the tenement-houses, and the increased congregating of dependent and improvident classes were going on from bad to worse every year.

The ratio per centum which the mortality of children under 5 years of age is in any year found to bear to the total mortality at all ages in the city is less or more significant according to the scale of increase or decrease in the death-rate of the whole population in the year ; for if in the total of ages at and over 5 years, the death-rate of that separate 913,717 inhabitants were to be decreased ten per centum, or, in 1875, had been so decreased, and at the same time the child mortality had been diminished in the same absolute ratio, the latter would not exhibit such change in the per centum ratio it held to the total mortality in the city. The death-rate has been decreasing in the past nine years, upon the whole, but the per cent. of child mortality has decreased in 1873, 1874, and 1875, in the total at all ages. This fact is favorable, because the general death-rate has not sensibly increased, but had the adult mortality been increased by any cause, then the apparent reduction of the per centum of the child mortality would be fallacious as evidence of any saving of life. The death-rate in the children which the census found in the city—

In the year 1865 was 134.72 in 1,000 of the living.
“ 1870 “ 120.09 in 1,000 “
“ 1875 “ 115.84 in 1,000 “

Table Exhibiting the Distribution of Population and the Variation of Death-rates from all Causes and from Zymotic Diseases in the Different Wards and Districts, and their Relations to the Density of Population. Census and Records of 1875.

District.	Ward.	Area.* (Exclusive of Parks)		Population.		Death-rate. (Mortality in Institutions, being distributed pro-rata to Ward Pop.)	Percentage of Deaths from Zymotic Diseases.	Density of Population.			Facts Relating to the Portions Occupied by Dwellings in the Respective Wards, and the Condition of the Sections not so Occupied.
		Acres.	Square Miles.	Total, all Ages.	Children under 5 years of age.			Number of Inhabitants per Acre.	Number of Inhabitants per Square Mile.	Number of Square Yards to each Inhabitant.	
First...... Fourteenth street to the Battery.	First..........	154	.24	14,298	1,635	36.64	24.52	92	59,420	52	About one-ninth of the area occupied by dwellings, but nearly all of them are partly devoted to commercial purposes.
	Second.......	81	.12	1,012	61	49.40	26.66	12	7.996	387	The dwellings consist in quarters for lodgings or families in a few of the commercial warehouses, together with a few hotels.
	Third........	95	.15	2,874	273	26.06	18.66	30	19,361	159	
	Fourth.......	83	.13	20,828	2,288	35.19	27.53	250	160,601	19	The dwellings consist in quarters for lodgings or families in a few of the commercial warehouses and banks, together with a few hotels; and a large number of crowded tenement-houses.
	Fifth.........	168	.26	15,951	1,895	29.84	28.01	94	60,765	50	
	Sixth.........	86	.13	19,861	2,308	35.74	26.78	230	147,802	20	Tenement-houses occupy one-fifth of the area; the residue is devoted to business purposes.
	Seventh......	198	.31	45,636	5,736	31.59	31.79	230	147,510	20	Tenement-houses occupy one-third of the area; the residue is devoted to business purposes.
	Eighth.......	183	.29	32,465	3,790	34.03	30.63	117	113,538	27	Tenement-houses occupy one-fifth of the area; numerous lodging-houses and hotels; about three-fifths of the area is devoted to business purposes.
	Ninth........	322	.50	49,403	5,558	27.75	31.23	153	98,192	31	One-half the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Tenth........	110	.17	41,757	5,714	33.37	36.15	379	242,949	12	Two-thirds the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Eleventh.....	196	.30	63,855	9,318	31.63	34.94	325	208,506	14	
	Thirteenth....	107	.17	34,013	4,809	30.69	37.60	317	203,442	15	
	Fourteenth...	96	.15	26,453	3,082	33.15	30.41	275	176,353	17	Three-fifths the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.

	Fifteenth.....	198	.31	25,529	1,752	22.91	30.88	128	82,517	37	One-half the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Seventeenth ..	331	.52	101,075	13,373	29.52	37.44	305	195,432	15	Two-thirds the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Total.....	2,408	3.76	495,010	61,592	31.09	32.91	205	131,564	23	
SECOND.... Fourteenth street to Eighty-sixth street.	Sixteenth.....	384	.60	48,235	4,979	24.89	29.70	125	80,391	38	One-half the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Eighteenth....	593	.93	61,195	6,591	27.29	34.41	103	66,045	46	
	Nineteenth ...	1,530	2.39	118,727	15,803	25.63	43.76	77	49.663	62	One-half the area occupied by tenement-houses and other dwellings; the residue devoted to business purposes (including hospitals and other institutions, which have a constant population of about 9,000).
	Twentieth....	416.2	.65	79,764	10,214	31.86	36.74	191	122,654	25	Two-thirds occupied by tenement-houses and other dwellings; the residue devoted to business purposes.
	Twenty-first..	492.6	.77	58,831	5,715	27.00	26.41	119	76,434	40	One-half occupied by tenement-houses and other dwellings; the residue devoted to business purposes (including Bellevue and some other institutions).
	Twenty-second	1,420	2.22	83,420	11,235	32.06	36.68	58	37,597	82	One-half occupied by tenement-houses and other dwellings; a small portion of remaining half devoted to business purposes, and the residue in process of improvement for buildings.
	Total.....	4,835.8	7.55	450,172	54,537	28.25	37.01	93	59,578	51	
THIRD..... Eighty-sixth st. to northern boundary of the city.	Twelfth......	3,480	5.44	60,510	7,290	25.45	38.76	17	11,128	278	About one-fifth occupied by dwelling-houses and a few tenements; a small fraction of the remainder is devoted to business purposes, and the residue comprises the open grounds of Washington Heights and Harlem.
	Twenty-third.	2,729	4.26	24,320	3,344	29.72	45.38	8	5,703	543	Consists of the rural district which recently was comprised within the town of Morrisania.
	Twenty-fourth	9,588	14.98	11,874	1,406	28.21	37.36	1	792	3,908	Consists of the rural district which recently comprised Kingsbridge, West Farms, and part of South Yonkers.
	Total.....	15,797	24.68	96,704	12,040	26.86	40.00	6	3,917	790	
Grand totals and averages....		23,040.8*	35.99*	1,041,886	128,169	29.47	35.51	45	28.949	107	
Added, total area of Parks .		1,358.78†	2.12†								
Total area of City..........		24,399.58	38.11								

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* The statement of the area of the different wards of the city, with corrections according to our best and latest information, changing the figures for the Twelfth, Twentieth, and Twenty-first Wards, and the total area from 12,702 to 10,723 8-10 acres in the twenty-two old wards.

Yours, respectfully,

R. H. CLIFFORD, *Chief Clerk, Dep't Public Works.*

† This statement is from the Topographical Engineer of the Department of Public Parks. E. H.

The per centum ratio which the deaths from children under 5 years of age had to the total mortality at all ages—

					Under 5 years old.		Total all ages.
In the year	1865	was	51.52,	or	12,802	in	24,848.
"	1866	"	47.25,	or	12,671	in	26,815.
"	1867	"	52.99,	or	12,274	in	23,159.
"	1868	"	52.50,	or	13,067	in	24.889.
"	1869	"	51.09,	or	12,859	in	25,167.
"	1870	"	49.06,	or	13,883	in	27,175.
"	1871	"	48.08,	or	12,971	in	26,976.
"	1872	"	49.58,	or	16,188	in	32,647.
"	1873	"	48.76,	or	14,182	in	29,084.
"	1874	"	48.58,	or	13,956	in	28,727.
"	1875	"	48.35,	or	14,848	in	30,709.

ZYMOTIC DISEASES.

These causes of mortality were charged with 9,715 deaths in 1874, and 10,904 in 1875, or 32.82 and 35.51 per cent. of the total from all causes in these years respectively. The summer diarrhœal maladies of young children were charged with nearly one-third of the deaths from zymotic causes; diphtheria with nearly one-fourth, and small-pox with nearly one-eighth of this class of deaths. The unusual prevalence of the two diseases last mentioned so increased the ratio of zymotic causes of mortality as to make it greater than in the average of the previous nine years; yet this rate of zymotic deaths, even in 1875 (35.51 per cent.), was less than in 1872 (36.10), when diarrhœal disorders gave the greatest excess of this class of causes of death.

The causes which maintain the excessive mortality from this class of diseases are so dependent on over-crowding of the population, and the conditions of insalubrity and danger which such crowding implies, that notwithstanding some of the zymotic maladies may prevail fatally in certain of the less crowded quarters, the degree of density of population obviously governs the degree of total excess of the class of diseases which are termed zymotic. The preceding table shows the rate of density of population per acre and per square mile in the several wards of the city and in its three grand divisions, namely: (1) From the Battery to Fourteenth street. (2) From Fourteenth street to Eighty-sixth street. (3) From the latter boundary on the south, to the Bronx and the line which divides Yonkers from New York. The area, population, death-rates and the relative mortality from the zymotic class of diseases in these different districts of the city in the year 1875, are shown in this table.

The foregoing summary exhibits the fact that in the Ninth, Twelfth, Fifteenth, Sixteenth, Eighteenth, and Nineteenth Wards, after a correction for the pro rata of deaths in public institutions, the death-rate was below that in the other wards. The excess (over the average for the city) of mortality from zymotic diseases in the wards where the hospitals are chiefly located, mostly results from the deaths in those institutions, but in other wards, namely,—the First, Tenth, Eleventh, Thirteenth, Twentieth, Twenty-third, and Twenty-fourth, the excess of zymotic causes, and excessive rate of mortality, are together due to local and domestic causes which the sanitary authorities are striving to overcome. The excessive death-rate in the First, Second, Fourth, Eighth, Tenth, Eleventh, Fourteenth, and Twentieth Wards is intimately associated with the domestic overcrowding of the tenement-house classes of inhabitants.

Table showing Dates of Organization of Wards and the Progress of Population in them, in the City of New York, from 1790 *to* 1875.

WARDS.	Date of Formation of the Ward.	1790.	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1860.	1865.	1870.	1875.
First	....	......	4,320	7,941	7,630	12,085	9,929	11,331	10,380	10,629	12,230	19,754	13,486	17,373	9,852	14,463	14,298
Second	....	......	5,167	8,493	7,439	8,214	9,315	8,203	7,549	6,394	6,962	6,665	3,249	2,507	1,194	1,312	1,012
Third	....	......	6,449	7,426	7,495	9,201	10,801	9,599	10,884	11,581	11,900	10,355	7,909	3,757	3,367	3,715	2,874
Fourth	....	......	6,935	10,226	9,856	10,736	12,240	12,705	11,439	15,770	21,000	23,250	22,895	21,994	17,352	23,748	20,828
Fifth	....	......	9,148	14,744	14,523	12,421	15,093	17,722	18,495	19,159	20,362	22,686	21,617	22,337	18,205	17,150	15,951
Sixth	....	......	13,076	11,286	11,821	13,309	20,061	13,570	14,827	17,198	19,343	24,698	25,562	26,696	19,754	21,153	19,861
Seventh	1791	......	15,394	12,120	10,886	13,006	14,091	15,873	21,481	22,982	25,556	32,690	34,422	39,982	36,962	44,818	45,636
Eighth	1803	......	......	9,128	10,702	13,766	24,285	20,729	28,570	29,073	30,900	34,612	34,052	39,406	30,098	34,913	32,465
Ninth	1803	......	......	4,719	4,343	11,162	10,956	17,333	20,618	24,795	30,907	40,657	39,982	44,385	38,504	47,609	49,403
Tenth	1808	......	......	10,890	10,824	17,806	23,932	16,438	20,929	29,026	20,993	23,316	26,378	29,004	31,537	41,431	41,757
Eleventh	1825	......	......	......	......	......	7,344	14,918	26,845	17,053	27,259	43,758	52,979	59,571	58,953	64,230	63,855
Twelfth	1827	......	......	......	......	......	7,938	11,808	24,437	11,652	13,378	10,451	17,656	27,958	28,259	47,497	60,510
Thirteenth	1827	......	......	......	......	......	......	12,598	17,130	18,517	22,411	28,246	26,597	32,917	26,388	33,364	34,013
Fourteenth	1827	......	......	......	......	......	......	14,288	17,306	20,235	21,103	25,196	24,754	28,080	23,382	26,436	26,453
Fifteenth	1832	......	......	......	......	......	......	......	13,202	17,755	19,422	22,564	24,046	27,587	25,572	27,587	25,529
Sixteenth	1836	......	......	......	......	......	......	......	......	22,723	40,350	52,882	39,823	45,176	41,972	48,359	48,235
Seventeenth	1837	......	......	......	......	......	......	......	......	18,619	27,147	43,766	59,548	72,953	79,563	95,365	101,075
Eighteenth	1846	......	......	......	......	......	......	......	......	......	......	31,546	39,509	57,462	47,613	59,593	61,195
Nineteenth	1850	......	......	......	......	......	......	......	......	......	......	18,465	17,866	28,252	39,945	86,090	118,727
Twentieth	1851	......	......	......	......	......	......	......	......	......	......	......	47,055	67,519	61,884	75,407	79,764
Twenty-first	1853	......	......	......	......	......	......	......	......	......	......	......	27,914	49,017	38,669	56,703	58,831
Twenty-second	1853	......	......	......	......	......	......	......	......	......	......	......	22,605	61,725	47,361	71,349	83,420
Twenty-third	1874	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	24,320
Twenty-fourth	1874	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	11,874
Totals	....	33,131	6-,489	96,373	95,515	123,706	166,086	197,112	268,089	312,710	371,223	515,547	629,904	805,358	726,386	942,292	1,041,886

Small-pox.—The 484 deaths from this contagious pest in 1874, and 1,280 in 1875, bear witness to the fact that neglect of thorough vaccination of infants was the chief cause, strictly a preventable cause, and the neglect and indifference of certain of the foreign immigrants in regard to their own protection against small-pox, are to be charged the greater part of this waste of life, for of the 1,280 who died from small-pox in 1875, no less than 224 were infants under 1 year of age, 508 were children under 5 years of age, and 295 were persons of foreign birth. It is also worthy of notice that while only 26 of the decedents were between 10 and 15 years of age, and only 54 between 15 and 20, there were 126 between 20 and 25, and 104 between 25 and 30 years of age. This plainly enough indicates the importance of re-applying the vaccinal test of protection against small-pox, once at least, in every person, early in the age of puberty.

Measles.—The temporary disappearance of measles from the daily causes of death in this city at various intervals in 1875 is a noticeable fact; and this occurred at a period when diphtheria was prevailing epidemically, and when scarlatina was less prevalent than in any previous year in the decade. There were 319 deaths from measles in 1874, and only 167 in 1875, while in the previous eight years the average annual number of deaths from this disease was 366. In these fatal cases of measles in 1874 and 1875 it appears that diphtheria was reported as fatally complicating the disease in 17 cases in the former and 3 cases in the latter year.

Scarlatina.—Seeming to subside in some degree as diphtheria increased in prevalence, scarlatina was charged with only 879 deaths in 1874, and 514 in 1875, yet it was certified as having preceded, by some brief period, 162 fatal cases of diphtheria in 1874, and 82 fatal cases of the same malady in 1875, while it was certified as immediately following and complicating 8 other fatal diphtheritic cases in 1874, and 6 in 1875. The sanitary care which is given by most family physicians, in the prompt seclusion of the sick of scarlatina, the thorough disinfection of all that pertains to or issues from the sick, together with the precautions taken for personal purification of all who attend upon the patients, and for disinfection and renovation of the apartments and bedding occupied by the sick, are tending to abate the prevalence of scarlatina. The subtle and persistent nature of the contagium of scarlatina, its liability to be carried wherever any particles of exfoliated cuticle or of epithelium or the excremental matter from the sick may be wafted or conveyed, render the sanitary duties of seclusion, disinfection, and other acts for guarding against the spread of this disease certainly as exacting as any which have been defined by sanitary science or ever undertaken by medical men. The emphatic pleading of Dr. Wm. Budd in 1869, that all attendants upon the sick with scarlatina should faithfully adopt these means of security, when he described in full detail precisely what means he had tested for twenty years with complete success, now finds thousands of physicians repeating that plea and applying those means for arresting the spread of scarlatina. "Separation on the one hand, and disinfection on the other, are the two elements of the method, and their efficiency depends wholly upon the same promptness, carefulness, and real completeness as respects both disinfection and seclusion, as would be necessary to prevent the spread of small-pox, were vaccination unknown." A destroyer of upwards of 20,000 young lives every year in the United States, and of many hundreds every year in our city, may ere long be controlled. It now seems probable that certain of the controllable external sources of this malady will be defined, and their influence be wholly prevented, for in the careful search into the local circumstances of outbreaks of this fever in England and Ireland, Dr. Çarpenter, in Croydon, and Dr. Maunsell, in Dublin, have separately reached the conclusion that slaughter-house refuse facilitates the propagation of the contagious property, or possibly produces an essential cause of this disease. Dr. Carpenter, who certainly is a very trustworthy sanitary investigator, has published the record of outbreaks of scarlatina which he believes to have originated in this manner. It is fortunate that sanitary science can thus lay hold upon preventable factors of an infectious destroyer.

Diphtheria.—The course of this disease from the beginning of its prevalence in this city (in the present generation) was alluded to in the report of this office in 1873–74. The statigraphic charts facing pages 257 and 270 exhibit the course of diphtherial epidemics in 1874 and 1875. The charts, with the aid derived from the tables of distribution of the city mortality in wards (pages 306–309), and from other tables following them, will sufficiently convey their own explanation. But in order to show in a definite and useful way the chief conclusions which the registered certificates of death from diphtheria will yield, the following abstracts are presented :

ABSTRACT OF REGISTERED FACTS CONCERNING TIME FROM ATTACK TILL DEATH,

And the Complicating Maladies in the Fatal Cases of Diphtheria, in 1874.

Day of Fatal Termination.	NUMBER OF CASES.																								
	Having no Record of any Complicating or Intercurrent Malady.	With Complicating or Intercurrent Maladies.																						Minor Complications.	Totals.
		preceding attack.				following attack.																			
		Scarlatina.	Measles.	Croup.	Puerperal Fever.	Scarlatina.	Measles.	Croup.	Pneumonia.	Bronchitis.	Laryngitis.	Congestion of Lungs.	Œdema of Lungs.	Convulsions.	Paralysis.	Nephritis.	Bright's Disease.	Albuminuria.	Uræmia.	Pyelitis.	Toxæmia.	Septicæmia.	Pyæmia.		
First day	16	1	..	..	..	..	..	3	..	..	2	..	..	2	1	..	..	..	..	..	..	..	..	..	25
Second day	50	2	..	2	..	..	1	18	1	..	2	..	1	6	..	..	..	..	1	..	3	..	..	9	96
Third day	119	8	2	1	..	2	1	24	1	..	9	2	..	13	3	2	..	..	1	..	4	..	..	21	213
Fourth day	171	17	1	..	..	..	1	31	6	1	3	4	..	12	4	1	..	..	..	..	5	1	..	16	274
Fifth day	155	18	1	..	..	3	..	16	2	4	9	..	1	8	5	..	..	2	..	..	6	2	1	22	255
Sixth day	113	15	..	..	..	..	..	13	3	2	6	1	..	5	1	..	..	..	..	..	1	..	..	18	178
Seventh day	112	14	1	..	..	..	..	11	1	3	7	..	..	7	1	2	..	..	..	..	2	2	1	15	179
Eighth day	71	8	..	..	..	..	1	6	1	..	3	..	..	5	..	..	2	..	..	..	1	..	..	11	109
Ninth day	25	5	..	..	..	..	..	7	..	..	1	1	..	3	..	1	..	..	1	..	1	1	..	7	53
Tenth day	39	11	..	..	..	..	1	4	5	1	1	..	1	2	..	..	..	..	..	..	2	1	1	12	81
Eleventh day	15	8	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	4	30
Twelfth day	17	3	..	..	1	..	..	1	1	3	..	..	2	1	..	..	..	..	2	..	..	1	..	3	35
Thirteenth day	13	3	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	22
Fourteenth day	39	15	..	..	..	..	1	4	1	..	1	..	..	5	..	2	..	..	..	..	..	1	..	5	74
Fifteenth day	3	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	8
Sixteenth day	6	3	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	14
Seventeenth day	2	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	7
Eighteenth day	4	2	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	11
Nineteenth day	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	6
Twentieth day	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	7
Twenty-first day	11	3	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	1	2	..	..	1	..	2	24
Later than twenty-first day	11	11	..	..	..	1	..	3	2	2	2	..	..	4	2	2	1	1	..	..	1	..	..	9	52
No record of time	85	11	2	..	..	1	..	15	3	5	4	..	1	8	..	..	..	..	..	..	..	..	..	8	143
	1,083	162	11	3	1	8	6	159	29	22	51	8	6	84	19	10	3	4	7	1	26	10	4	179	*1,896

* 231 duplicated, or repeated, under the above heads.

ABSTRACT OF REGISTERED FACTS CONCERNING TIME FROM ATTACK TILL DEATH,

And the Complicating Maladies in the Fatal Cases of Diphtheria, in 1875.

Day of Fatal Termination.	Number of Cases.																						
	Having no Record of any Complicating or Intercurrent Malady.	With Complicating or Intercurrent Maladies.																				Minor Complications.	Totals.
		Preceding Attack.			Following Attack.																		
		Scarlatina.	Measles.	Croup.	Scarlatina.	Measles.	Croup.	Pneumonia.	Bronchitis.	Laryngitis.	Congestion of Lungs.	Œdema of Lungs.	Convulsions.	Paralysis.	Nephritis.	Bright's Disease.	Albuminuria.	Uræmia.	Toxæmia.	Septicæmia.	Pyæmia.		
First day	17	1	..	..	..	..	11	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2	33
Second day	80	3	..	..	..	..	19	..	3	1	1	2	7	2	..	..	..	..	..	..	..	3	121
Third day	148	5	..	..	1	..	42	3	5	11	1	2	8	2	1	..	..	..	3	..	..	7	239
Fourth day	188	2	..	..	1	..	47	2	1	14	2	1	5	4	..	..	..	..	7	2	..	11	287
Fifth day	212	5	..	..	1	..	35	1	..	5	2	3	6	2	..	..	..	..	6	3	1	8	290
Sixth day	146	3	1	1	..	..	25	5	2	5	1	1	5	1	1	..	..	..	2	..	2	7	208
Seventh day	149	11	..	..	..	..	37	2	2	10	..	..	10	3	1	..	1	..	3	5	1	4	239
Eighth day	80	5	..	..	1	..	12	1	..	7	2	1	6	..	1	..	..	2	2	3	2	8	133
Ninth day	50	3	..	..	..	1	5	..	2	..	..	..	1	1	..	..	1	..	2	1	1	4	72
Tenth day	63	1	..	..	1	..	14	1	..	2	..	1	7	2	..	..	..	2	3	1	..	8	106
Eleventh day	19	2	..	..	..	..	3	..	..	1	..	..	1	..	..	..	..	..	..	..	..	3	29
Twelfth day	17	5	..	..	..	..	1	1	1	2	1	..	2	1	1	1	..	..	1	3	2	3	42
Thirteenth day	14	1	..	..	..	..	1	1	..	1	..	..	3	..	..	..	..	1	1	..	..	3	26
Fourteenth day	49	8	..	..	1	..	2	3	..	..	..	..	2	2	..	..	1	1	3	..	..	11	83
Fifteenth day	9	2	..	..	..	1	1	..	2	..	..	..	..	..	1	1	1	..	1	1	..	4	24
Sixteenth day	8	1	..	..	..	..	..	..	1	..	..	..	...	2	..	..	1	..	..	..	..	1	14
Seventeenth day	4	1	..	..	..	..	..	1	..	..	..	..	..	1	1	1	..	..	..	..	..	1	10
Eighteenth day	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	8
Nineteenth day	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	1	7
Twentieth day	3	1	..	..	..	..	1	1	..	..	..	..	1	2	1	..	..	1	..	..	..	..	11
Twenty-first day	12	3	..	..	..	..	..	4	1	1	..	..	1	..	2	2	..	1	1	..	..	2	30
Later than twenty-first day	13	5	..	..	..	..	1	6	5	..	..	..	3	7	4	2	3	..	..	1	2	10	62
No record of time	201	13	..	1	..	..	43	6	6	6	..	..	9	8	5	..	2	3	4	4	1	25	337
	1,489	82	1	2	6	2	300	39	31	66	11	11	77	40	19	8	10	11	39	25	14	128	*2,411

* 82 duplicated.

From the tables here given the fact clearly appears that diphtheria not only may destroy life rapidly, but that it readily invades such delicate tissues of the body as are most harmed by scarlatina, by measles, or by croup. The points certified by physicians concerning the diseases found by them to have complicated diphtheria, doubtless may not be altogether exact, as respects the concurrence and the fatal share of the respective diseases, but they have much significance, and they also evince a sincere purpose of physicians to state such useful information as they are able in their certificates of the diphtherial deaths. The recognized tendency of diphtheria to follow and fasten upon patients who recently were suffering from scarlatina leads some persons to infer that these two diseases are not clearly or differentially diagnosticated and subsequently certified for the public records; and further that, *mutatis mutandis*, the error, in either way, will depend on the popular or the professional belief in predominant epidemic tendencies. Certainly errors do occur, and are inevitably registered, in regard to the name of the disease that caused death, and they probably occur oftener in the relations of membranous croup and diphtheria than with regard to scarlatina and diphtheria. It appears creditable to those who have certified the deaths from diphtheria that the records of them are as available for useful analysis as we now find them.

An inspection of the foregoing tables, and a comparison of them with the Consolidated Abstracts on pages 347–407, will show that this disease is charged with directly destroying 1,665 lives in this city, and with fatally complicating 177 other cases in 1874, and with destroying 2,329 lives and complicating 86 other cases in 1875, and prevailed very unequally amidst the inhabitants, and as pointed out in the report of this Bureau in 1873–74, it has continued to be most steadily and fatally prevalent in the Nineteenth, Twentieth and Twenty-second Wards. The persistence of the disease in that comparatively open section of the city, and upon the highest ground as well as by the watersides, the recurrence of its prevalence in the best as well as in the worst sections of the Seventh, Ninth, Eleventh, Seventeenth and Eighteenth Wards, and its rare presence in the central area, and even the most crowded quarters along the middle of the city from Whitehall to Twenty-third street, indicate that even in the more crowded portions of the city diphtheria does not as uniformly elect the most unhealthful wards, as most other zymotic diseases do. Yet medical observers have ample evidence that sewer gases and foul cellars, as local conditions, play a fatal part in promoting house epidemics of this malady. The external and natural circumstances of localities wherein diphtheria has prevailed most fatally, and most frequently recurs, require more exact study than they have received in any country, for as Dr. Wm. Farr, of the General Registry Office for England, has shown : " It is a remarkable fact that of diphtheria, out of the same number born, more die in the healthy districts of England than in Liverpool ; the proportions are 1,029 in the healthy districts, and 443 in Liverpool out of 100,000 born. The deaths from scarlet fever are 2,140 in the healthy districts, to 3,830 in Liverpool." That careful investigator of the causes of mortality further states that in the Southeastern Division of England (the healthful counties of Berkshire, Hampshire, Kent, Sussex, and the rural part of Surrey), which has only two-thirds as many inhabitants as London, the deaths from diphtheria exceed the number of deaths from that disease in London ; and he adds : " Generally it is more fatal where there are offensive privies than in towns with water-closets."

Observations on the fatal cases of Diphtheria.—The 1,665 deaths directly chargeable to this disease in 1874, and the 2,329 in 1875, presented 738 cases in the former and 859 cases in the latter year, variously complicated with maladies which hastened the fatal result. These complications were oftener the result of diphtheria than they were distinct and independent diseases. Scarlatina, measles, and croup were reported as distinct diseases preceding diphtheria in numerous cases, viz., in 1874, 162 cases of scarlatina, 11 of measles, and 3 of croup ; and in 1875, 82 of scarlatina, 1 of measles, and 2 of croup. In most of these cases the medical attendants certified the disease that had thus preceded, as being the chief cause of death ; thus in the 1,896 cases of diphtheria that terminated fatally in 1874, 231 were charged to some of the complicating maladies, and of the 2,411 terminating in 1875 in like manner, 82, or precisely the number that had scarlatina as a preceding malady, were charged to that disease.

The dangerous tendency of diphtheria to implant itself in cases of scarlatina, at any period of the latter disease, is shown in the second and fifth columns of the accompanying abstract. The greater prevalence of scarlatina in 1874 than in 1875, and the increased intensity of the diphtheritic epidemic in 1875, sufficiently account for the decrease in scarlatinous complications in the latter year.

Of the diseases which proved most fatal by their intercurrence and as sequela, were laryngitis, pneumonia, bronchitis, and toxæmia. Convulsions, paralysis, and croup, though frequently certified as fatal complications, may be supposed to describe the manner and an aggravating proximate cause of death, rather than as being in any sense separate diseases. The croupous condition which was reported in 300 of the deaths in 1875, appears to have hastened the fatal termination of a large number of cases that died previous to the eighth day; there was nothing in the history of these cases, as certified, to invalidate the opinion that the croupous exudation was truly diphtheritic. The number of cases certified as toxæmic, septicæmic, and uræmic, was large in 1875—there being no less than 89 cases thus complicated. The fact should be noted here, that only 4 of these 89 cases of blood-poisoning occurred in the same cases in which scarlatina was certified as a complication. The number of cases fatally complicated with convulsions is large and significant—161; and the number complicated with paralysis—19 in 1874, and 40 in 1875—indicates the fearful gravity of diphtheria as a destructive malady.

The records of this—the most malignant epidemic of diphtheria which has occurred in New York during the present century—enable us to understand the accounts given of the same malady during the latter part of the previous century under the names of "*cymancha maligna*," and "*putrid sore-throat*."

Diarrhœal and other Zymotic Diseases.—The diarrhœal disorders of infants in the hot season are charged with about one-third of all the deaths from the zymotic class of diseases. The distribution of the deaths from diarrhœal causes, and the rate of mortality from them, from diphtheria, and from the total class of zymotic diseases, respectively, as shown in the tables (pages 306–309) will suggest useful deductions to be sought by further study.

The Share of Zymotic Causes in the Total Mortality in New York.—In the year 1874, the 9,715 deaths from this class of causes were equal to 33.82 per cent. of the total mortality from all causes; and in 1875 the deaths from this class equalled 35.51 per cent. of the total. The harm to human life and health from the worst of these diseases is not terminated with their own ending, for as witnessed in vast numbers of persons who recover from scarlatina, small-pox, diphtheria, and enteric fever, the value and effectiveness of life are impaired, and various chronic and lingering diseases follow as results. Whether it be scarlatina, enteric fever, or puerperal fever that is avoided and prevented, the life that wholly escapes any and all of these zymotic diseases is more secure than that which has fortunately survived sickness from them. The gain to the average length and vigor of human life by the prevention of the chief zymotic maladies, especially scarlatina, small-pox, diphtheria, diarrhœal diseases, and all the fevers, would certainly be very great. In an investigation of this subject, upon the basis of the census and the death-registry of England, Dr. Wm. Farr reaches the conclusion "that if none of the males (in England and Wales) died of any zymotic disease, the duration of life would be raised, should they remain (survive) subject to the existing rates of mortality from all other diseases. * * * The mean after lifetime at birth (the expectation of life) would be raised from 39.68 to 46.77." That is, if the zymotic diseases caused no mortality, the mean age at death, in England and Wales, would be seven years greater than it now is. The prevention of pulmonary consumption, according to the same deductions in the life tables, would increase the mean lifetime in the whole population in that country, a little more than 3¼ years.

To illustrate the significance of the part which a few of the contagious diseases have as their separate share in 1,000,000 of deaths, Dr. Farr has arranged the following, to which we now add a concluding column:

DEATHS.	"LIFE TABLE DEATHS TO 1,000,000 (BORN ALIVE.)"			RATIO OF DEATHS FROM EACH OF THESE CAUSES TO 1,000,000 OF DEATHS IN THE CITY OF NEW YORK, ON THE BASIS OF THE MORTALITY IN 1874 AND 1875.
	In Liverpool.	In all England.	In the 63 Healthiest Districts of England.	
By Small-pox........	8,141	6,521	2,359	29,678
" Measles..........	26,973	12,865	6,912	8,176
" Scarlatina........	38,302	30,021	21,403	23,436
" Whooping Cough.	34,021	15,161	10,234	15,075
By Enteric, Common, and Typhus Fevers.	76,563	38,107	28,146	11,171

In the column of figures at the right hand by the side of the English table, the rate of mortality by the same diseases in 1874 and 1875 in New York is shown upon the same basis of 1,000,000 of deaths. The author above mentioned has remarked, in regard to this subject, that "Efforts should be made to reduce all the contagious recurrent diseases to a minimum by placing the whole population in as favorable a sanitary condition as possible, so that these diseases may be taken, as they are then, in the mildest form." Experience proves that the same general measures of sanitary improvement in districts and in dwellings, in public and in personal hygiene, conduce to the general reduction of mortality from the constitutional, and many of the inflammatory diseases, as well as from the infectious and other zymotic maladies.

Intemperance and Alcoholism.—There were 588 deaths certified in 1874 to have been caused by intemperance, and 487 certified in like manner in 1875. Nearly half of these persons were between the ages of 30 and 40 years, and the rate was about equal to 1 death in every 1,000 inhabitants living at those ages. In the next decenniad of human ages a still higher rate of mortality is charged to intemperance, and from 50 to 55 years of age, as well as from 55 to 60, the death-rate increases from this cause, the chronic effects of ebriety becoming fatal; the lungs, the brain, the stomach, liver and kidneys fail to bear up and recover from injuries that have been inflicted by alcoholism, and the victims die from a complication of causes which give to the certificates of their death some special characteristics. Delirium tremens and most forms of direct alcoholic poisoning occur before old age is reached. The tabulated abstract of the mortuary records of these unfortunate persons will be found in this report on pages 512–523. It continues to be particularly noticeable that carmen, drivers, common laborers, domestic servants, and housekeepers participate most largely in this misfortune, as far as it obtains any registration among causes of mortality. While in the inspection of the records on pages 496–509, it is necessary to bear in mind that only a fraction of the whole number of cases there analyzed has been attributed to delirium tremens and alcoholism, and only 100 simply as "intemperance." Physicians will regard their certificates on which these records are based as too lenient, by half. The fact that with equal care to record the same classes of facts in each of the two years, the number of deaths attributable to intemperance was less in 1875 than in 1874, and that in the past four years these numbers have continually decreased, will not be unnoticed. This is one of the gratifying evidences that reckless ebriety may be repressed. The educational and social progress of the people tend to establish the habit and power of self control in individuals, and to diminish even the entailments of this evil; and, as the English registry shows, there is a marked increase in fatal *alcoholism* in successive years of general *adversity*, and a steady decrease during years of business prosperity. The registers show that 5,546 deaths were charged directly to *alcoholism* in six consecutive years in England and Wales, and that there only 2,230 of that number occurred during the first three—prosperous years—but that in the three following years—of adversity—3,316 occurred.

Constitutional Diseases.—This large class of diseases destroyed 6,090 lives in the city of New York in 1875, and has always been charged with about 20 per cent. of the total mortality in the city. Gout, rheumatism—the arthritic diseases,—cancers, and phthisis pulmonalis, the chief members of this class, make a yearly record of mortality that invites close scrutiny. These records for 1874 will be found on pages 352–361, and in 1875 on pages 412–421, of the Consolidated Abstracts of the Causes of Mortality.

Phthisis Pulmonalis.—In the year 1874 there were 4,034, and in 1875 there were 4,172 deaths, or a little over 13 per cent. of the total mortality from all causes in the city charged to this disease. This is at the rate of a small fraction over 4 deaths in every 1,000 of the living population. Foreign residents suffered a far higher rate of mortality from this disease than the native born, and that portion of the population which was between the ages of 25 and 35 paid the heaviest death toll; that from 35 to 40 and that from 40 to 50 suffered only a measure less. On inspection of the abstracts of the records of phthisis for the year 1874 (481–487), the death-rate by it in the population, according to the census of 1875 (488–495), will be seen. In the bottom column of that abstract, the rate of mortality to every 1,000 of the living population in the respective wards of the city is stated, and the following table shows the death-rate from this malady in each age period and in the respective wards for 1875:

Rate of Mortality from Phthisis Pulmonalis in every 1,000 *of the Population in Age-Periods.*

	Under 5 Years.	5–10.	10–15.	15–20.	20–25.	25–30.	30–35.	35–40.	40–45.	45–50.	50–55.	55–60.	60–65.	65–70.	70–75.	75–80.	80–90.	90 and Upwards.
Death-rate per 1,000 inhabitants, inclusive of all institutions...........................	1.16	.43	.68	2.42	5.12	5.43	6.05	6.17	6.17	6.47	5.64	8.41	6.87	11.21	9.36	9.95	10.57	8.49

Rate of Mortality from Phthisis Pulmonalis in every 1,000 *of the Population in the respective Wards.*

	Phthisis Death-Rates in the Several Wards.																							
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth.	Thirteenth.	Fourteenth.	Fifteenth.	Sixteenth.	Seventeenth.	Eighteenth.	Nineteenth.	Twentieth.	Twenty-first.	Twenty-second.	Twenty-third.	Twenty-fourth.
Death-rate per 1,000 inhabitants, exclusive of Deaths in the city institutions..................	4.47	4.94	2.43	4.60	3.07	5.43	3.81	4.21	3.19	3.75	2.77	2.21	2.96	4.91	2.74	2.94	2.82	3.10	2.20	3.58	2.61	3.08	1.48	3.78

The death-rate from phthisis pulmonalis in the city population (1,041,886), inclusive of all city institutions, in which there were 965 deaths from this disease, was 4.00 in the 1,000.

The death-rate, exclusive of deaths in the city institutions, was 3.07 per 1,000.

The 965 patients in public institutions who died from phthisis during the year were sent from what are known as the tenement-house districts—chiefly in the First, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Thirteenth, Fourteenth, Sixteenth, Twentieth, and parts of the Seventeenth, Eighteenth, Nineteenth, and Twenty-second Wards.

Occupations of those who died from Phthisis.—Of bakers, there died 48 ; of bartenders and saloon-keepers, 82 ; of carmen and drivers, 133 ; of cigar-makers, 80, and upwards ; of clerks, bookkeepers and salesmen, 265 ; and of laborers and domestics, 881.

No fact is more conspicuous in the history of this disease than that it afflicts different classes of persons very unequally, and that the poorer and badly housed of the population suffer more severely than any others from this disease ; and beyond this fact, in the history of phthisis among the crowded common people of the city, other facts must be noticed. First, as to locality. By referring to the above table, in which is exhibited the death-rate to the 1,000 inhabitants in each ward—the hospital mortality in the entire city, and consequently, for the respective wards being omitted in the estimation of these death-rates in wards—it is noticeable, that in the First, Second, Fourth, Sixth, Eighth, and Fourteenth Wards, the death-rate from phthisis is excessive. Now, the most conspicuous circumstance in the sanitary topography of these six wards is that, with the exception of the Fourteenth, their inhabited grounds are but slightly elevated above tide-level ; even in their principal sewers, high tides obstruct the outflow for a great distance ; the cellars and basements, the alleys and rear courts are sodden with moisture and decayed organic matters. The Fourteenth Ward differs from the other five, chiefly in the predominance of more compactly built up and overcrowded rear courts, and in a deeper poverty of the tenement inhabitants. The cellars and basements of this ward are excessively damp throughout its densely populated quarters.

While these facts are important to be noticed in connection with the excess of phthisis mortality in those wards, the overcrowding and sanitary defects of the old tenement-houses there, and the correspondingly low social condition of the people, constitute the most important factor in the causation of phthisis among them.

Next in order we notice that in the Fifth, Seventh, Ninth, Tenth, Seventeenth, and Twentieth Wards, the death-rate from phthisis is excessive. Sanitary inspections warrant the conclusion that the causes of the excess are essentially the same as in the six wards first mentioned.

In the Third, Eleventh, Thirteenth, Fifteenth, Sixteenth, Eighteenth, Nineteenth, Twenty-first, Twenty-second, Twenty-third, and Twelfth Wards, the lowest death-rate from phthisis occurs ; we enumerate these wards from the south, northward, for convenience. These wards have a preponderance of the well-housed and the affluent classes, and they occupy the most elevated and well-drained quarters of the city, though each of these eleven most healthful wards is flanked with tenement-houses upon its lowest evels.

It remains to consider the mortality from phthisis in the Twenty-fourth Ward separately. It is at once most sparsely populated, and the most unaffected by artificial drainage and sewerage, and its inhabitants have, as a general fact, had the most permanent and long-continued family homes and local heritage. It is still a rural district ; scarcely any of its sick people are sent from their dwellings to our city hospitals. Its death-rate from phthisis (3.78 in the 1,000 inhabitants) is the rate for the locality and a permanent population there, though twice greater than it need be if that beautiful district were well drained and its inhabitants duly accustomed to rules of domestic and personal hygiene ; for, like the city of Ely (England), where the death-rate was even greater than that in this Twenty-fourth Ward, until drainage and sanitary improvements were commenced twenty years ago, the general death-rate can be reduced forty-five per cent., and that from phthisis 47 per cent., as has occurred in that English city. It is a notable fact in the history of sanitary improvements, which comprise thorough drainage, cleansing, dryness, ventilation and domestic hygiene, that phthisis pulmonalis—the greatest destroyer of adult life—is more uniformly diminished than the general death-rate itself.

The next series of facts which invite special notice will be seen in the table relating to the phthisis death-rate in the different ages of life. The fatality of this disease in the quinquenniad from fifteen to twenty years of age rises to 2.42 in 1,000 of the living. This is more than one-third of all who died in that five years' period. And from twenty to twenty-five years of age, 5.12 in 1,000, or nearly one-half of the mortality from all causes, is from phthisis. From 25 to 30, from 30 to 35, and 35 to 40, considerably more than one-third of the total mortality is from this one disease ; and from 40 onward through the ages of activity up to 65 years, this one disease is charged with from 30 down to 20—as age advances—of every 100 that die in those ages. From 65 to the oldest ages, this disease has a less conspicuous share in the mortality.

The death-rate from phthisis pulmonalis in the total population seems to be slowly decreasing in New York, but there are classes of inhabitants in which it manifestly does not decrease. The colored population, of which 15,203 were enumerated in the last census, had a death-rate of 6.57 in every 1,000, while the average rate for the entire city population was only 4 per 1,000; and as shown in the foregoing table, the inhabitants of the First, Fourth, Sixth, Seventh and Fourteenth Wards suffered nearly twice as great a death-rate from this disease as the inhabitants of the Fifteenth and Twenty-third Wards.

In the report of this bureau for 1873, the records of mortality from all causes for 55 consecutive years were arrayed to show that phthisis had in the earlier years of that period been charged with from upwards of 20 to a little less than 16 per cent. of the total mortality, and with 14.29 per cent. of all deaths in the 55 years. The deaths from this cause in 1875, constituted 13.58 per cent. of the total mortality. An inspection of the foregoing table will show that in the age-periods in which life has its greatest social and commercial value —if such an expression may be permitted—namely from 15 to 50 years of age, 35.7 per cent. of all who died in those ages of life, in the city of New York, perished by phthisis pulmonalis.

Cancer.—An inspection of the tabulated abstracts of the records of death from cancer (pages 354–419), will show that with the constantly increasing carefulness of diagnosis and description of carcinomatous disease, the number of deaths reported from it has increased annually from 304 in 1869, to 415 in 1875; yet it is not probable that the actual number of fatal carcinomas in the 1,000 inhabitants has increased so much as the registered medical certificates concerning it might seem to indicate. The more than fifty specifications of different organs and parts of the body in which 415 cases of cancer proved fatal in the last year, show how the disease distributes and varies its widely different points of attack. The possibility that carcinomatous disease may be steadily increasing, as well as the certainty that several hundred lives in every million of the population will perish by it in each successive year, after much suffering, give importance to the teachings of physiology and hygiene concerning its causes and prevention. Dr. John Simon, of the English Sanitary Service, with Drs. Craighton, Burdon-Sanderson, and Prof. Klein as special investigators in the field of physiological and etiological questions which relate to the prevention of the most destructive diseases, have followed on from the study of tubercle and the processes of infections—the autocthonic as well as the contagious—until some light is being thrown upon essential points relating to causation of cancer. It is a significant fact in the progress of sanitary science and of the public health studies, that for four years past the three eminent pathologists here mentioned have been employed in a line of exact scientific investigations which have necessarily included the most essential questions relating to cancerous as well as tuberculous and various infectious diseases. (*See Public Health Reports of the Medical Officer of the Privy Council and Local Government Board;* New Series, Nos. III. and VI., 1874–1876.) The value of the lives which are destroyed and the importance of arresting the entailments of any of these "constitutional" diseases, well warrant the prosecution of such investigations. In the last report of the English Registry Office, Dr. Farr remarks that in England, "Cancer, one of the longest and most painful diseases to which mankind is subject, is growing more fatal." The rate of deaths from it in that country, from 1870 to 1874, was equal to 443 annually in every 1,000,000 of the population. In New York the rate is but little over 400 in the 1,000,000 yearly.

LOCAL DISEASES.

The remarkable increase in the number of deaths from pneumonia, in the years 1874 and 1875, is as significant of special causes as an epidemic of some fatal fever would have been, though quite different from the latter. It was this great increase of pneumonia, and of bronchitis and congestion of the lungs, that augmented the share which the class of local diseases had in the total mortality in these two years. Aside from these acute pulmonary diseases there has been no marked increase, but on the contrary, some decrease in most of the inflammatory kinds of disease.

Diseases of the Nervous System.—From the diseases of the brain and nervous system, there were only 2,436 deaths in the year 1875, against 2,702 from the same causes in 1873. From apoplexy, meningitis, inflammation of the brain and softening of the brain, there were only 1,178 deaths in 1875, against 1,350 in 1873.

Diseases of the Urinary System.—Nephria, or Bright's disease, was charged with 827 deaths in 1874 and 909 in 1875, and the whole group of urinary diseases had 1,287 deaths registered—the largest number yet reported in any year. The registration of deaths from this group of diseases the past ten years gives the following summary :

	In **1866.**	**1867.**	**1868.**	**1869.**	**1870.**	**1871.**	**1872.**	**1873.**	**1874.**	**1875.**
Deaths from Nephria (Bright's Disease)...	412	403	534	557	787	947	947	876	827	909
Total Deaths from Urinary Diseases...	549	585	740	771	1,038	1,163	1,174	1,112	1,140	1,287

Only 269 deaths in 1874, and 232 in 1875, were certified as being due to nephria alone, without serious complicating conditions ; previous to the reorganization of this bureau, nine years ago, these various complicating disorders were in most instances returned as the actual and chief cause of death in such cases ; physicians have become more and more careful in the duty of such a differential diagnosis as will enable them to set forth as correctly as possible the cause of death which can be charged directly to fatal changes in the tissues of vital organs. Nephria, as the name of the most common forms of fatal changes in the structure of the kidneys, while it implies as a nosological term, one or more of a considerable variety of morbid changes, serves a better purpose in the registered records of death than the less definite term " Bright's disease " could serve. An inspection of the tables relating to this cause of death, on pages 525 to 528, shows that of the 827 fatal cases of nephria in 1874, 49 had " dropsy " of some kind, besides the 8 which had hydrothorax ; 73 suffered œdema of the lungs ; 11 had hypertrophy of the heart ; 11 others, cirrhosis of the liver ; 18 had pneumonia ; while 151 actually died from uræmia, or the blood-poisoning incident to the disease itself. And in 1875, of the 909 deaths from nephria, 59 had dropsy of some kind, 12 others had pleuritis and hydrothorax ; 62 had œdema of the lungs ; 10 had hypertrophy of the heart ; 15 had cirrhosis and other forms of hepatic disease ; 24 had pneumonia ; while no less than 211 died of uræmia. These minute statements concerning the fatally complicating conditions which enter into the history of nephria as the registered cause of death, are due to the painstaking care of medical practitioners whose certificates of death have been thus registered in this bureau.

DEVELOPMENTAL DISEASES.

These causes, or, rather, conditions of mortality, which specially relate to the processes of development (in children), to woman (as respects her sex and maternity), to age, nutrition and decay, had 1,704 deaths registered in this city in 1875. This is equal to 5.79 per cent of the total mortality, and is less than the mean rate from this group of causes in the past ten years. The chief causes of death connected with the puerperal state of mothers, continue to be grouped in this class, excepting that puerperal fever is still classified with the zymotic diseases, because it is recognized as an intensely infectious fever. The time is near when diseases and causes of death which separately pertain to child-bearing will be classified by themselves. The vital statisticians and leading medical nosologists in Europe already have proposed this change. As the four separate groups, and more than thirty different names, of causes of deaths in the class of developmental diseases now stand, nearly every certificate of a death has appended to it special explanations which show that various causes or circumstances were concerned in the fatal result of the case.

VIOLENT DEATHS.

The tabulated abstracts on pages 531–552 set forth many of the facts concerning the deaths under the several groupings of this class. None other of the five classes of causes of mortality give a more uniform death-rate in the 1,000,000, yet some of the causes have been reduced in their activity and frequency of occurrence, and numerous others could be prevented. The records of 180 suicides in 1874, and 155 in 1875, show that even the self-destruction of unfortunate persons occurs too frequently to be permitted to receive so little attention and preventive care in some large portion of the cases which might be averted. But it is in the long catalogue of accidents and casualties that the greatest number can be saved from violent deaths. The reduction of the number of fatal accidents in 1875 (1,187) to 61 less than in 1874 (1,248) indicates some improvement.

CONDENSED SUMMARY OF THE RECORDS OF DEATH IN NEW YORK, IN THE TEN YEARS FROM 1866 TO 1875,

By Classes of Causes, in the different Age-Periods, with percentage of each.

Classes of Causes.		Nativity.		Under 1 year.	1—	2—	3—	4—	Under 5 years.	5—	10—	15—	20—	25—	30—	35—	40—	45—	50—	55—	60—	65—	70—	75—	80—	85—	90—	95—	100 and upwards.	Total, both Sexes.	Percentage of each Class on Total.
		United States.	Foreign.																												
Zymotic.	1866	.....	.....	2,614	1,265	528	334	257	4,998	498	171	196	400	421	377	342	297	243	217	189	158	131	64	46	30	6	1	2	1	8,788	32.77
	1867	.....	.....	2,656	1,281	505	294	181	4,917	306	71	85	152	163	170	159	100	104	80	70	69	52	40	22	10	10	3	..	..	6,583	28.41
	1868	6,207	1,249	3,394	1,336	478	310	188	5,706	396	72	103	146	178	154	137	80	115	90	48	76	69	35	28	14	6	2	1	..	7,456	29.96
	1869	6,179	1,497	2,943	1,400	632	424	301	5,700	419	92	108	178	177	173	163	150	101	112	82	75	60	31	30	13	5	4	2	1	7,676	30.50
	1870	6,614	1,700	3,406	1,389	598	370	238	6,001	401	96	113	187	232	215	213	185	134	136	100	89	68	69	48	20	6	1	..	..	8,314	30.60
	1871	6,928	1,436	3,549	1,393	632	371	246	6,191	408	117	143	223	245	199	164	130	120	98	68	60	62	67	33	22	10	2	1	1	8,364	31.01
	1872	9,760	2,055	4,862	1,895	909	612	359	8,637	743	243	193	333	278	243	238	200	154	142	84	102	63	73	44	19	13	5	3	..	11,815	36.19
	1873	8,193	1,400	3,868	1,497	740	644	427	7,176	807	131	108	157	170	147	156	133	132	115	73	84	71	51	46	22	8	3	3	..	9,593	32.98
	1874	8,594	1,208	3 803	1,573	836	626	445	7,284	907	160	126	183	200	175	162	96	99	105	49	70	41	62	40	30	7	3	1	2	9,715	33.82
	1875	9,560	1,408	4,025	1,802	957	736	514	8,034	984	157	142	259	237	217	156	180	125	89	79	76	63	63	53	23	21	6	3	1	10,904	35.51
Constitutional.	1866	.....	.....	1,358	517	184	84	48	2,191	131	81	223	491	482	451	458	361	296	255	205	170	147	86	51	31	9	1	1	..	6,121	22.83
	1867	.....	.....	1,042	483	165	75	50	1,815	108	71	188	444	480	412	470	367	311	237	166	157	141	69	49	21	7	..	..	..	5,513	23.80
	1868	2,984	2,680	997	513	142	66	39	1,757	109	60	188	483	521	468	444	355	329	229	211	181	151	92	53	21	8	4	..	..	5,664	22.76
	1869	2,900	2,820	993	474	190	65	45	1,767	116	57	177	450	503	450	468	405	324	261	196	189	160	104	61	19	10	2	1	..	5,720	22.73
	1870	3,154	3,175	1,062	428	173	78	51	1,792	94	84	223	512	591	551	505	430	387	345	243	212	153	106	55	26	14	3	3	.	6,329	23.28
	1871	3,126	3,137	988	448	148	78	44	1,706	99	76	222	498	684	580	591	433	372	305	227	178	130	91	45	18	6	1	..	1	6,263	23.22
	1872	3,331	3,273	1,063	461	158	84	59	1,825	124	79	247	538	687	593	570	509	387	315	195	214	119	105	58	27	9	3	..	..	6,604	20.23
	1873	3,119	3,174	966	360	120	73	48	1,567	101	72	263	550	659	561	553	464	394	320	222	207	157	109	55	25	9	4	1	..	6,293	21.64
	1874	2,936	3,087	857	338	113	59	39	1,406	108	74	234	491	613	605	544	452	388	340	222	216	135	98	66	18	7	4	2	..	6,023	20.97
	1875	3,066	3,024	807	335	117	63	48	1,370	106	91	279	571	591	574	553	469	408	303	236	197	138	106	61	18	16	3	..	..	6,090	19.83
Local.	1866	.....	.....	2,752	821	337	177	124	4,211	305	131	184	334	393	498	461	411	359	400	324	299	316	212	122	67	24	6	4	..	9,061	33.79
	1867	.....	.....	2,651	953	361	199	128	4,292	284	157	146	302	346	368	400	348	370	321	272	300	245	194	115	54	27	5	1	..	8,547	36.91
	1868	6,119	3,253	2,764	986	396	199	126	4,471	299	156	175	330	412	434	482	437	421	348	289	299	319	239	158	52	36	5	..	..	9,362	37.61
	1869	6,046	3,343	2,530	995	442	218	157	4,342	343	158	166	281	363	412	450	418	495	398	309	359	333	250	165	91	46	7	2	1	9,389	37.31
	1870	6,082	3,817	2,840	842	347	187	123	4,339	270	141	175	331	370	459	556	532	473	428	376	426	360	289	187	106	58	17	4	2	9,899	36.43
	1871	5,630	3,650	2,336	815	363	169	131	3,814	289	157	187	275	375	415	449	492	501	460	418	413	367	326	164	116	44	11	4	3	9,280	34.40
	1872	6,489	4,414	2,713	947	403	215	161	4,439	371	186	204	323	424	492	605	580	601	541	452	475	391	375	241	118	54	15	13	3	10,903	33.40
	1873	6,061	4,093	2,744	842	326	182	123	4,217	320	160	179	291	388	444	512	569	541	509	395	436	382	390	205	137	52	19	8	..	10,154	34.91
	1874	6.020	3,967	2,571	859	324	182	131	4,067	268	142	165	265	369	409	508	460	561	564	444	432	416	412	265	138	64	24	10	4	9,987	34.76
	1875	6,444	4,316	2,647	964	349	187	123	4,270	278	151	190	278	395	468	584	557	602	546	503	493	456	389	327	157	83	25	7	1	19,760	35.04

Developmental.	1866	.....	.....	1,008	64	12	5	3	1,092	6	7	20	31	28	41	33	18	20	18	15	46	55	100	111	118	70	24	16	6	1,875	6.99
	1867	.....	.....	1,016	60	5	2	4	1,087	3	5	14	35	30	37	37	21	18	8	19	31	36	65	70	108	53	27	11	5	1,720	7.43
	1868	1,117	406	902	33	9	4	3	951	6	2	15	31	38	32	37	15	10	5	8	10	25	57	98	93	45	32	8	5	1,523	6.12
	1869	1,045	390	871	11	2	2	1	887	3	..	20	34	40	41	33	14	7	6	4	12	27	42	77	88	54	29	11	6	1,435	5.70
	1870	1,191	442	994	15	1	1	2	1,013	2	..	13	57	43	50	49	16	6	9	7	16	22	71	84	83	50	24	9	9	1,633	6.01
	1871	1,251	514	1,047	5	1	2	1	1,056	3	2	23	71	93	67	47	20	6	7	10	32	26	81	65	64	46	22	15	9	1,765	6.54
	1872	1,321	683	1,083	6	2	..	..	1,091	2	3	38	122	118	117	84	20	15	5	6	25	22	83	83	81	49	22	11	7	2,004	6.14
	1873	1,278	605	1,048	5	2	..	1	1,056	3	3	33	116	112	83	63	31	6	4	8	21	30	81	70	86	33	17	22	5	1,883	6.47
	1874	1,146	521	969	4	4	..	1	978	1	..	21	70	74	64	62	23	5	4	8	17	32	69	75	73	51	26	11	3	1,667	5.80
	1875	1,147	557	985	4	2	3	..	994	1	..	17	54	91	66	55	29	9	2	8	12	38	63	75	90	55	12	19	14	1,704	5.55
Violence.	1866	.....	.....	104	21	29	15	10	179	76	39	36	65	89	106	105	88	47	39	27	38	19	8	6	1	2	..	..	..	970	3.62
	1867	.....	.....	99	17	20	17	10	163	52	42	36	70	61	61	114	63	44	30	16	10	19	7	4	3	1	..	..	..	796	3.44
	1868	388	496	100	20	25	21	16	182	46	43	42	53	79	98	101	75	59	28	23	26	9	12	6	..	2	..	..	..	884	3.55
	1869	387	560	68	26	29	24	16	163	60	47	27	61	97	88	85	97	81	59	20	23	14	8	7	5	2	2	1	..	947	3.77
	1870	420	580	81	29	32	28	18	188	55	43	43	73	109	80	106	85	65	56	29	23	19	13	8	3	2	..	..	..	1,000	3.68
	1871	535	769	74	46	35	28	21	204	66	53	67	108	142	119	145	116	89	59	42	41	25	15	7	3	3	..	..	..	1,304	4.83
	1872	547	774	70	33	42	27	24	196	81	64	69	100	107	156	138	118	79	72	48	36	18	19	13	3	2	1	1	..	1,321	4.04
	1873	484	677	52	29	30	30	25	166	79	65	54	88	105	101	134	108	85	53	39	29	21	16	10	4	2	2	..	..	1,161	3.99
	1874	555	693	79	44	42	28	28	221	64	59	41	71	108	115	145	109	90	74	45	42	25	22	10	6	..	1	..	..	1,248	4.34
	1875	527	660	76	31	32	23	18	180	85	50	53	83	94	101	120	112	81	79	62	30	18	13	18	4	3	1	..	..	1,187	3.86
Total.	1866	.....	.....	7,836	2,688	1,090	615	442	12,671	1,016	429	659	1,321	1,413	1,473	1,399	1,175	965	929	760	711	668	470	336	247	111	32	23	7	26,815	....
	1867	.....	.....	7,464	2,794	1,056	587	373	12,274	753	346	469	1,003	1,080	1,048	1,180	899	847	676	543	567	493	375	260	196	98	35	12	5	23,159	....
	1868	16,805	8,084	8,157	2,888	1,050	600	372	13,067	854	333	523	1,043	1,228	1,186	1,201	962	934	700	579	592	573	435	343	180	97	43	9	5	24,889	....
	1869	16,557	8,610	7,405	2,906	1,295	733	520	12,859	941	354	498	1,004	1,180	1,164	1,199	1,084	1,008	836	611	658	594	435	340	216	117	44	17	8	25,167	....
	1870	17,461	9,714	8,383	2,703	1,151	664	432	13,333	822	364	567	1,160	1,345	1,355	1,429	1,248	1,065	974	755	766	622	548	382	238	130	45	16	11	27,175	....
	1871	17,470	9,506	7,994	2,707	1,179	648	443	12,971	865	405	642	1,175	1,539	1,380	1,396	1,191	1,088	929	765	724	610	580	314	223	109	36	20	14	26,976	....
	1872	21,448	11,199	9,791	3,342	1,514	938	603	16,188	1,321	575	751	1,416	1,614	1,601	1,635	1,427	1,236	1,075	785	852	618	655	439	248	127	46	28	10	32,647	....
	1873	19,135	9,949	8,678	2,733	1,218	929	624	14,182	1,310	431	637	1,202	1,434	1,336	1,418	1,305	1,158	1,001	737	777	661	647	386	274	104	45	34	5	29,084	....
	1874	19,251	9,476	8,279	2,818	1,319	895	645	13,956	1,348	435	587	1,080	1,364	1,368	1,421	1,140	1,143	1,087	768	777	649	663	456	265	129	58	24	9	28,727	....
	1875	20,744	9,965	8,540	3,136	1,457	1,012	703	14,848	1,454	449	681	1,245	1,408	1,426	1,468	1,347	1,225	1,019	888	808	713	634	534	292	178	47	29	16	30,709	....
Percentage of each of these sub-divisions, of the Total Mortality, annually.	1866	.....	.....	29.22	10.02	4.06	2.29	1.65	47.25	3.79	1.60	2.45	4.93	5.27	5.49	5.22	4.37	3.60	3.46	2.83	2.65	2.49	1.75	1.25	.92	.41	.12	.09	.02	.....	....
	1867	.....	.....	32.23	12.06	4.56	2.33	1.61	52.99	3.25	1.49	2.03	4.33	4.66	4.53	5.10	3.88	3.66	2.91	2.34	2.45	2.13	1.62	1.12	.85	.42	.15	.05	.02	.....	....
	1868	67.52	32.48	32.77	11.60	4.22	2.41	1.49	52.50	3.44	1.34	2.10	4.19	4.93	4.77	4.83	3.87	3.75	2.81	2.32	2.34	2.30	1.75	1.38	.72	.39	.17	.04	.02	.....	....
	1869	65.79	34.21	29.42	11.55	5.14	2.91	2.07	51.09	3.74	1.40	1.98	3.99	4.69	4.62	4.76	4.31	4.00	3.32	2.43	2.61	2.36	1.73	1.35	.86	.46	.17	.07	.03	.....	....
	1870	64.26	35.74	30.84	9.95	4.24	2.44	1.59	49.06	3.02	1.34	2.09	4.26	4.95	4.99	5.26	4.59	3.92	3.58	2.78	2.82	2.29	2.02	1.40	.88	.48	.17	.06	.04	.....	....
	1871	64.76	35.24	29.63	10.03	4.37	2.40	1.64	48.08	3.20	1.50	2.38	4.35	5.71	5.12	5.17	4.41	4.03	3.45	2.84	2.68	2.26	2.15	1.17	.82	.40	.14	.07	.05	.....	....
	1872	65.70	34.30	29.99	10.23	4.64	2.87	1.85	49.58	4.05	1.76	2.30	4.34	4.94	4.90	5.01	4.37	3.79	3.29	2.40	2.61	1.89	2.01	1.34	.76	.39	.14	.09	.03	.....	....
	1873	65.79	34.21	29.84	9.40	4.19	3.19	2.14	48.76	4.50	1.48	2.19	4.13	4.93	4.58	4.87	4.49	3.98	3.44	2.53	2.67	2.27	2.22	1.33	.94	.36	.15	.12	.02	.....	....
	1874	67.01	32.98	28.82	9.81	4.59	3.11	2.24	48.58	4.69	1.51	2.04	3.75	4.75	4.76	4.96	3.97	3.97	3.78	2.67	2.70	2.27	2.30	1.58	.92	.45	.20	.08	.03	.....	....
	1875	67.55	32.45	27.81	10.21	4.74	3.29	2.29	48.35	4.73	1.46	2.22	4.05	4.58	4.65	4.78	4.38	3.98	3.32	2.89	2.63	2.32	2.07	1.73	.95	.57	.15	.09	.05	.....	....

TABLE SHOWING THE COMPARISON OF ENUMERATED POPULATIONS IN 1865 AND 1875, AND THE MORTALITY IN EACH YEAR, BY AGE-PERIODS AND CLASSES, WITH THE DEATH-RATES IN THEM.

	Year	Nativity.			Colored.	Under 5 years.	5–10 years.	10–15 years.	15–20 years.	20–25 years.	25–30 years.	30–40 years.	40–50 years.	50–60 years.	60–70 years.	70–80 years.	80 years and upwards.	Age Unknown.	Totals.
		United States.	Foreign.	Unknown.															
Population	1865	407,312	313,477	5,597	9,943	95,020	91,755	71,768	61,111	69,407	69,728	120,452	80,918	39,074	18,588	5,583	1,435	1,547	726,386
	1875	595,922	445,964	....	15,203	128,169	109,150	97,158	108,113	106,265	104,240	169,496	116,161	61,913	28,844	10,038	2,339	....	1,041,886
Deaths...........	1865	16,727	7,920	196	422	12,802	1,027	369	606	1,184	1,263	2,389	1,757	1,230	1,062	653	329	172	24,843
	1875	20,744	9,965	....	401	14,848	1,454	449	681	1,245	1,408	2,894	2,572	1,907	1,521	1,168	562	....	30,709
Death-rate per 1,000 inhabitants	1865	41.06	25.26	....	42.44	134.72	11.19	5.14	9.91	17.05	18.11	19.83	21.71	31.47	57.13	116.96	229.26	....	34.20
	1875	34.80	22.34	....	26.37	115.84	13.32	4.62	6.29	11.71	13.50	17.07	22.14	30.80	52.73	116.35	240.27	....	29.47

This table presents the statistical comparisons which are most trustworthy in regard to both the census and the mortality classifications. The decennial census of the city, under State authority, classifies the population into age-periods of 5 years or *quinquenniads*, and the yearly summaries of mortality which have been presented by the Bureau of Vital Statistics since 1866 have classified the ages of decedents in like periods, and for children, by years of age. Prior to 1866, the deaths were classified by ten-years or decennial periods for all decedents over 30 years of age; hence in this table all ages after the 30th year are classified in decenniads.

The National census presents no age-classification of city populations; hence the comparisons in the above table are limited to the last two census years and the decenniad of the State census, 1865–1875.

On the preceding two pages, presenting the summary of mortality in the last ten years consecutively, the points of comparison by age-periods, and by classes of causes of death, are presented in detail.

While the city has had its area doubled, and its population has been increased by more than 300,000, its death-rate has certainly decreased. From infancy to ripe age, even to the 60th and 65th year, there seems to have been an appreciable gain to life. The greatest gain has occurred at those periods when life is at its greatest value to families and to the world; such gains, if real and progressive, certainly imply that various agencies of social as well as material improvement are in operation among the people.

While in the saving of lives by the operation of sanitary improvements, a great number of frail and defective individuals will be reared and kept alive until they produce other sickly offspring, who, like themselves, may not live out half a natural lifetime; thus, in effect, countervailing, in some small degree, the more obviously economical and enriching results of sanitary works, the greater and more permanent results—the saving of most valued lives—cannot otherwise be attained. The fever that was propagated to a hundred ignorant and dependent people in the little town of Windsor, also killed Prince Albert, who will ever be remembered as one of the noblest of men. The sanitary care that saves the lowest of the population saves the noblest. Even the hygienic and humane care of the pauper mother, which guards her from puerperal accidents and fever, saves the most precious of precious lives in the homes of the noble and the affluent. The loss of many lives which have great value is most noticeable under the registered heads of phthisis, pneumonia, nephria, valvular diseases and hypertrophy of the heart, apoplexy, enteric or typhoid fever, accidents, and suicides, and lastly the accidents and diseases of child-birth. These seven or eight little groups of losses of life, when enumerated in the yearly records of mortality, present the following figures:

Deaths of persons, between 15 and 60 years of age, in this city in 1875—

From phthisis pulmonalis	3,549
" pneumonia	1,135
" nephria (as chief cause)	670
" hypertrophy of heart	156
" valvular disease of heart	298
" apoplexy	179
" enteric or typhus fever	251
" accidents and suicides	717
" the accidents and diseases of child-birth	370
Total	7,325

Thus it appears that during the forty-five most active and productive years of human life, nine of the special causes of death, which sanitary, domestic, and social improvements are tending largely to diminish, were charged with about one-fourth part of the aggregate mortality in the entire population. With the progress of hygiene, and with general knowledge and practice of its laws, the rate of mortality from these few and many other analogous causes will greatly decrease. Yet it is in the more preventable and most destructive diseases of children that the greatest losses of life occur. It is in early childhood also that the greatest and most permanent injuries to health are inflicted in thousands who survive their attacks of sickness. The greatest necessities and rewards for sanitary care and preventive measures are more conspicuously witnessed in childhood than in later life. It is now practicable to point out the local conditions and social circumstances out of which more than 25 in every 100 who die might be saved to riper and more useful years of life under the influence of improved hygienic conditions. A general endeavor to attain this advantage to society by overcoming the chief causes of premature death and of impaired health would imply that a popular knowledge of the natural laws of hygiene had already become incorporated into the common education, and was producing its good results in the homes, habits, and culture of the people ; for such permanent gain in the average duration and usefulness of individual lives by prevention of diseases, and by improvement of constitutional vigor, can be attained only in those families and communities which encourage and maintain the hygienic duties by which these vital improvements are secured. Death, as "a necessary sequence of certain causes," and as an inevitable event which awaits all, becomes a subject for sanitary investigation in those respects in which it is untimely or preventable. The prevention of premature mortality and excessive death-rates implies the discovery and avoidance of the evils by which such mortality is caused ; and not that alone, but prevention also of accumulated misery due to "untimely death, and its shadow, sickness—another name for suffering and depressed and disordered vitality." The gain in health, happiness, and usefulness of human lives greatly exceeds all gains over the rates of mortality.

The first use of the registry and investigation of causes of death, as directed by the Board of Health, the past ten years, has helped to point out preventable sources of untimely mortality, and as the determination of evils is the first step towards their remedies, this use of vital statistics may now be justly credited with its full share in the work of sanitary improvement, while the registered records of this Bureau will always have their separate uses, and full value in the civil archives concerning the three genealogical epochs of the individual history of the population.

Respectfully submitted,

ELISHA HARRIS, M. D.

October 20, 1876.

BUREAU OF VITAL STATISTICS.

REPORT OF THE DEPUTY REGISTER FOR 1874–75.

BUREAU OF VITAL STATISTICS,
NEW YORK, January 3, 1876.

ELISHA HARRIS, M. D., *Register of Records*:

SIR—I have the honor to submit the following report relating to the returns of births, marriages, and still-births received in this Bureau during the years 1874 and 1875:

BIRTHS.

During the year 1875, 23,813 births were registered in this Bureau against 25,747 registered in 1874. 23,559 were white, 253 colored, and the color of 1 was not stated; 12,054 were males and 11,669 females, and the sex of 90 was not stated; 15,067 had foreign-born parents and 4,528 had American parents, 2,902 had foreign-born fathers and American mothers, and 1,021 had foreign-born mothers and American fathers; the number of certificates received where the nativity of the father was alone stated, was 21 native and 36 foreign, and where the nativity of the mother was alone stated, was 106 native and 105 foreign, with 27 not stated. The full name of the child was written on 16,130 certificates, while 7,683 were forwarded to this Bureau before the names were decided upon. The ages of 64 fathers were between 15 and 20 years, 2,218 between 20 and 25, 5,441 between 25 and 30, 5,406 between 30 and 35, 3,721 between 35 and 40, 2,089 between 40 and 45, 821 between 45 and 50, 389 were 50 years and more, and the ages of 3,664 were not stated. The ages of 12 mothers were between 12 and 15 years, 1,048 between 15 and 20 years, 5,539 were between 20 and 25 years, 6,382 were between 25 and 30 years, 4,375 were between 30 and 35 years, 2,523 were between 35 and 40 years, 753 were between 40 and 45 years, 87 between 45 and 50 years, 9 were 50 years and more, and the ages of 3,085 mothers were not stated. 2,264 native mothers bore their first child, 1,582 their second, 1,075 their third, 677 their fourth, 435 their fifth, 295 their sixth, 180 their seventh, 115 their eighth, 57 their ninth, 42 their tenth, 9 their eleventh, 10 their twelfth, 6 their thirteenth, 4 their fourteenth, 1 her fifteenth, and the number of children borne by 762 native mothers was not stated; 3,016 foreign mothers bore their first child, 2,550 their second, 2,250 their third, 1,711 their fourth, 1,270 their fifth, 930 their sixth, 729 their seventh, 454 their eighth, 326 their ninth, 195 their tenth, 129 their eleventh, 61 their twelfth, 47 their thirteenth, 12 their fourteenth, 1 her fifteenth, 2 their sixteenth, 2 their seventeenth, and the number of children borne by 2,640 foreign-born mothers was not stated. The following tables will show the most important particulars relating to the birth-returns of this city during the years 1874 and 1875.

ABSTRACT OF THE REGISTRY OF BIRTHS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1874.

1874.	Totals.	Color.			Sex.			Nativity of Parents.									Name of Child.	
												Nativity of Father stated only.		Nativity of Mother stated only.				
		White.	Colored.	Not stated.	Male.	Female.	Not stated.	Foreign.	Native.	Foreign Father only.	Foreign Mother only.	Native.	Foreign.	Native.	Foreign.	Not stated.	Stated.	Not stated.
January	2,168	2,148	20	..	1,150	1,016	2	1,449	355	236	97	1	4	16	9	1	1,516	652
February	1,957	1,948	9	..	1,026	931	..	1,290	340	196	92	3	2	18	10	6	1,304	653
March	2,140	2,123	17	..	1,092	1,045	3	1,406	385	227	91	2	..	12	15	2	1,471	669
Totals First Quarter	6,265	6,219	46	..	3,268	2,992	5	4,145	1,080	659	280	6	6	46	34	9	4,291	1,974
April	1,856	1,850	6	..	1,006	845	5	1,213	333	195	81	3	..	18	10	3	1,275	581
May	1,869	1,860	9	..	964	903	2	1,231	317	204	83	5	..	6	14	9	1,262	607
June	2,283	2,270	13	..	1,159	1,116	8	1,441	454	255	83	6	5	13	18	8	1,553	730
Totals Second Quarter	6,008	5,980	28	..	3,129	2,864	15	3,885	1,104	654	247	14	5	37	42	20	4,090	1,918
July	2,419	2,398	21	..	1,226	1,182	11	1,570	434	275	100	7	4	10	9	10	1,580	839
August	2,312	2,289	23	..	1,204	1,102	6	1,479	429	274	94	7	6	13	7	3	1,524	788
September	2,172	2,146	26	..	1,151	1,012	9	1,342	436	228	111	5	3	15	16	16	1,463	709
Totals Third Quarter	6,903	6,833	70	..	3,581	3,296	26	4,391	1,299	777	305	19	13	38	32	29	4,567	2,336
October	2,229	2,202	27	..	1,120	1,089	20	1,418	404	243	83	15	5	23	14	24	1,529	700
November	2,116	2,087	29	..	1,046	1,056	14	1,302	437	220	89	19	4	20	15	10	1,402	714
December	2,226	2,193	33	..	1,132	1,090	4	1,453	404	258	75	3	1	12	13	7	1,455	771
Totals Fourth Quarter	6,571	6,482	89	..	3,298	3,235	38	4,173	1,245	721	247	37	10	55	42	41	4,386	2,185
Totals for the Year	25,747	25,514	233	..	13,276	12,387	84	16,594	4,728	2,811	1,079	76	34	176	150	99	17,334	8,413

ABSTRACT OF THE REGISTRY OF BIRTHS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1874—(*Continued*).

1874.	Age of Parents.																	
	Father.									Mother.								
	15 to 20 Years.	20 to 25 Years.	25 to 30 Years.	30 to 35 Years.	35 to 40 Years.	40 to 45 Years.	45 to 50 Years.	Over 50.	Not stated.	12 to 15 Years.	15 to 20 Years.	20 to 25 Years.	25 to 30 Years.	30 to 35 Years.	35 to 40 Years.	40 to 45 Years.	45 to 50 Years.	Over 50.	Not stated.
January	4	175	411	452	313	180	71	45	517	..	75	482	524	367	210	80	5	1	424
February	5	173	423	388	284	166	59	38	421	..	80	426	520	303	195	69	4	2	358
March	2	215	460	462	313	177	78	26	407	..	83	488	534	419	196	69	4	1	346
Totals First Quarter	11	563	1,294	1,302	910	523	208	109	1,345	..	238	1,396	1,578	1,089	601	218	13	4	1,128
April	4	186	391	398	239	159	65	33	381	..	73	319	449	352	227	86	22	2	326
May	4	167	430	373	269	137	64	33	392	5	69	435	452	326	165	75	5	..	337
June	2	239	484	475	321	221	66	33	442	..	98	528	555	411	228	65	9	1	388
Totals Second Quarter	10	592	1,305	1 246	829	517	195	99	1,215	5	240	1,282	1,456	1,089	620	226	36	3	1,051
July	9	217	529	564	341	206	89	24	440	..	102	549	647	409	223	96	11	..	382
August	7	229	523	480	348	186	90	33	416	1	97	525	624	380	233	71	7	..	374
September	6	214	450	466	303	190	69	32	442	..	111	458	554	378	209	63	10	1	388
Totals Third Quarter	22	660	1,502	1,510	992	582	248	89	1,298	1	310	1,532	1,825	1,167	665	230	28	1	1,144
October	4	195	494	465	331	191	63	29	457	..	107	479	585	384	196	74	2	1	401
November	3	209	455	485	320	152	57	34	401	..	74	490	533	395	199	60	6	4	355
December	4	203	509	514	360	174	72	32	358	1	76	533	579	431	233	69	9	..	295
Totals Fourth Quarter	11	607	1,458	1,464	1,011	517	192	95	1,216	1	257	1,502	1,697	1,210	628	203	17	5	1,051
Totals for the Year	54	2,422	5,559	5,522	3,742	2,139	843	392	5,074	7	1,045	5,712	6,556	4,555	2,514	877	94	13	4,374

ABSTRACT OF THE REGISTRY OF BIRTHS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1875.

1875.	Totals.	Color.			Sex.			Nativity of Parents.									Name of Child.	
												Nativity of Father stated only.		Nativity of Mother stated only.				
		White.	Colored.	Not stated.	Male.	Female.	Not stated.	Foreign.	Native.	Foreign Father only.	Foreign Mother only.	Native.	Foreign.	Native.	Foreign.	Not stated.	Stated.	Not stated.
January	2,100	2,091	8	1	1,016	1,012	72	1,377	370	267	76	..	..	5	5	..	1,372	728
February	1,888	1,873	15	..	914	969	5	1,205	383	217	62	1	..	5	13	2	1,264	624
March	2,209	2,186	23	..	1,134	1,074	1	1,366	423	265	113	2	4	8	14	14	1,513	696
Totals First Quarter	6,197	6,150	46	1	3,064	3,055	78	3,948	1,176	749	251	3	4	18	32	16	4,149	2,048
April	1,927	1,926	1	..	979	942	6	1,283	321	240	61	1	..	9	6	6	1,298	629
May	1,670	1,643	27	..	835	835	..	1,065	322	198	66	1	..	8	8	2	1,154	516
June	1,922	1,904	18	..	988	931	3	1,219	365	235	85	..	2	10	5	1	1,298	624
Totals Second Quarter	5,519	5,473	46	..	2,802	2,708	9	3,567	1,008	673	212	2	2	27	19	9	3,750	1,769
July	2,046	2,016	30	..	1,092	954	..	1,284	406	238	92	2	6	13	5	..	1,349	697
August	2,086	2,049	37	..	1,059	1,027	..	1,325	382	267	88	1	6	9	7	1	1,354	732
September	1,976	1,949	27	..	1,011	962	3	1,241	376	239	92	2	3	11	12	..	1,397	579
Totals Third Quarter	6,108	6,014	94	..	3,162	2,943	3	3,850	1,164	744	272	5	15	33	24	1	4,100	2,008
October	1,996	1,978	18	..	991	1,005	..	1,256	369	246	97	5	6	9	8	..	1,411	585
November	1,952	1,933	19	..	984	968	..	1,198	402	237	87	4	4	11	9	..	1,322	630
December	2,041	2,011	30	..	1,051	990	..	1,248	409	253	102	2	5	8	13	1	1,398	643
Totals Fourth Quarter	5,989	5,922	67	..	3,026	2,963	..	3,702	1,180	736	286	11	15	28	30	1	4,131	1,858
Totals for the Year	23,813	23,559	253	1	12,054	11,669	90	15,067	4,528	2,902	1,021	21	36	106	105	27	16,130	7,683

ABSTRACT OF THE REGISTRY OF BIRTHS IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1875—(*Continued*).

1875.	Age of Parents.																	
	Father.									Mother.								
	15 to 20 Years.	20 to 25 Years.	25 to 30 Years.	30 to 35 Years.	35 to 40 Years.	40 to 45 Years.	45 to 50 Years.	Over 50.	Not stated.	12 to 15 Years.	15 to 20 Years.	20 to 25 Years.	25 to 30 Years.	30 to 35 Years.	35 to 40 Years.	40 to 45 Years.	45 to 50 Years.	Over 50.	Not stated.
January	7	192	490	471	293	186	56	33	372	..	84	486	552	347	205	92	5	2	327
February	1	188	431	408	282	167	67	37	307	1	80	452	481	359	192	51	4	..	268
March	3	201	510	501	343	189	72	34	356	1	99	511	583	414	212	70	10	1	308
Totals First Quarter	11	581	1,431	1,380	918	542	195	104	1,035	2	263	1,449	1,616	1,120	609	213	19	3	903
April	4	172	403	440	284	183	86	35	320	2	78	434	523	352	200	58	4	2	274
May	4	160	360	372	263	136	61	30	284	..	73	383	443	300	177	46	4	..	244
June	11	175	445	423	279	173	80	35	301	..	80	441	515	330	214	72	11	..	259
Totals Second Quarter	19	507	1,208	1,235	826	492	227	100	905	2	231	1,258	1,481	982	591	176	19	2	777
July	6	204	451	493	317	160	69	38	308	2	98	488	545	363	209	70	10	..	261
August	4	197	502	488	347	179	51	37	281	3	94	498	571	406	218	64	5	1	226
September	5	199	483	472	312	163	65	33	244	..	101	451	544	378	228	51	5	2	216
Totals Third Quarter	15	600	1,436	1,453	976	502	185	108	833	5	293	1,437	1,660	1,147	655	185	20	3	703
October	6	157	458	431	359	202	64	22	297	..	78	466	556	379	211	66	15	1	224
November	6	178	442	455	328	170	85	23	265	2	87	437	549	348	243	64	7	..	215
December	7	195	466	452	314	181	65	32	329	1	96	492	520	399	214	49	7	..	263
Totals Fourth Quarter	19	530	1,366	1,338	1,001	553	214	77	891	3	261	1,395	1,625	1,126	668	179	29	1	702
Totals for the Year	64	2,218	5,441	5,406	3,721	2,089	821	389	3,664	12	1,048	5,539	6,382	4,375	2,523	753	87	9	3,085

TABLE SHOWING THE NUMBER OF CHILDREN BORNE BY EACH MOTHER,

As collected from the Returns of Births received in this Bureau, for the Twelve Months ending December 31, 1874.

Months.	Native Mothers.																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Not Stated.
January	171	119	84	53	36	31	22	7	4	4	4	..	..	..	..	..	..	..	..	..	48
February	162	111	94	49	32	16	10	11	2	2	2	..	2	..	..	..	..	..	..	..	51
March	181	121	104	57	29	32	20	5	5	5	4	1	..	1	..	..	..	..	..	..	59
Totals for Quarter	514	351	282	159	97	79	52	23	11	11	10	1	2	1	..	..	..	..	..	..	158
April	163	99	90	48	24	23	9	9	6	3	3	1	..	1	..	..	..	..	..	..	53
May	183	112	82	37	31	20	16	7	6	2	1	..	1	..	..	..	..	..	..	..	34
June	241	155	76	60	43	26	23	6	6	3	1	1	..	..	..	..	..	..	..	..	78
Totals for Quarter	587	366	248	145	98	69	48	22	18	8	5	2	1	1	..	..	..	..	..	..	165
July	229	142	109	60	39	36	27	5	7	4	2	..	..	1	..	..	..	..	..	..	61
August	212	154	93	56	39	34	14	11	10	3	2	..	..	..	..	..	1	..	..	..	87
September	207	170	63	66	41	18	18	8	4	2	1	2	..	..	..	..	..	..	..	..	75
Totals for Quarter	648	466	265	182	119	88	59	24	21	9	5	2	..	1	..	..	1	..	..	..	223
October	228	121	78	72	40	19	16	11	10	5	2	1	1	..	..	..	..	..	..	..	64
November	197	148	86	74	33	26	18	8	3	2	1	..	..	..	..	..	..	..	..	..	51
December	183	146	97	57	36	31	19	11	6	2	1	..	1	..	..	..	..	..	..	..	67
Totals for Quarter	608	415	261	203	109	76	53	30	19	9	4	1	2	..	..	..	..	..	..	..	182
Totals for Year	2,357	1,598	1,056	689	423	312	212	99	69	37	24	6	5	3	..	..	1	..	..	..	728

Total number of Children of Native-born Mothers, **7,619.**

TABLE SHOWING THE NUMBER OF CHILDREN BORNE BY EACH MOTHER,

As collected from the Returns of Births received in this Bureau, for the Twelve Months ending December 31, 1874.

Months.	Foreign Mothers.																				
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	Not Stated.
January	316	252	206	193	141	95	58	45	30	18	12	6	2	3	1	..	1	..	..	..	206
February	294	213	191	143	120	77	56	48	22	24	12	5	4	3	..	..	1	..	..	..	191
March	312	243	219	142	109	94	60	53	24	15	12	7	5	3	..	..	..	..	..	..	214
Totals for Quarter	922	708	616	478	370	266	174	146	76	57	36	18	11	9	1	..	2	..	..	..	611
April	300	198	168	134	101	77	52	38	35	12	9	4	4	1	..	..	..	..	..	..	184
May	297	209	164	133	103	91	63	40	24	23	9	8	5	3	..	..	..	..	..	..	155
June	346	257	183	185	117	97	40	57	36	14	14	7	6	1	..	..	..	..	..	..	188
Totals for Quarter	943	664	515	452	321	265	155	135	95	49	32	19	15	5	..	..	..	..	..	..	527
July	336	280	223	166	126	98	63	52	34	27	17	9	2	..	2	2	1	2	..	..	248
August	350	222	196	159	114	84	72	58	21	20	12	6	4	2	..	..	1	..	..	1	270
September	293	200	182	160	124	87	60	33	31	16	16	9	7	3	1	..	..	..	..	..	253
Totals for Quarter	979	702	601	485	364	269	195	143	86	63	45	24	13	5	3	2	2	2	..	1	771
October	326	252	182	160	113	86	59	46	33	15	7	7	3	..	..	1	..	..	..	..	240
November	237	276	198	173	119	93	56	44	30	20	3	10	..	..	..	1	..	..	..	..	191
December	284	258	221	167	111	93	50	51	31	28	10	7	3	2	1	1	..	..	..	..	248
Totals for Quarter	847	786	601	500	343	272	165	141	94	63	20	24	6	2	1	3	..	..	..	..	679
Totals for Year	3,691	2,860	2,333	1,915	1,398	1,072	689	565	351	232	133	85	45	21	5	5	4	2	..	1	2,588

Total number of Children of Foreign-born Mothers, **17,995.**

TABLE SHOWING THE NUMBER OF CHILDREN BORNE BY EACH MOTHER,

As collected from the Returns of Births received in this Bureau, for the Twelve Months ending December 31, 1875.

Months.	Native Mothers.																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Not Stated.
January..............	187	133	79	65	33	25	11	8	3	..	3	..	..	..	..	..	..	..	..	..	54
February............	186	117	97	55	29	19	16	3	4	4	..	..	1	1	..	..	..	..	..	..	55
March...............	218	127	104	49	34	22	14	13	10	6	1	2	2	..	..	..	..	..	..	..	74
Totals for Quarter...	591	377	280	169	96	66	41	24	17	10	4	2	3	1	..	..	..	..	..	..	183
April................	178	123	78	52	41	30	20	7	3	4	..	1	..	..	..	..	..	..	..	..	49
May..................	168	107	80	47	38	27	11	7	5	3	..	..	..	..	..	..	..	..	..	..	44
June.................	174	132	85	60	32	19	13	10	4	4	1	1	1	1	..	..	..	..	..	..	70
Totals for Quarter...	520	362	243	159	111	76	44	24	12	11	1	2	1	1	..	..	..	..	..	..	163
July.................	215	117	104	50	37	20	11	11	2	3	..	2	..	..	1	..	..	..	..	..	71
August...............	206	131	83	48	42	24	16	12	9	5	..	1	..	1	..	..	..	..	..	..	75
September...........	213	115	83	48	39	23	17	7	1	4	..	1	..	..	..	..	..	..	..	..	51
Totals for Quarter...	634	363	270	146	118	67	44	30	12	12	..	4	..	1	1	..	..	..	..	..	197
October..............	174	138	84	66	39	32	16	13	6	3	2	1	..	1	..	..	..	..	..	..	65
November............	156	177	108	82	39	14	14	15	7	2	1	1	2	..	..	..	..	..	..	..	74
December............	189	165	90	55	32	40	21	9	3	4	1	..	..	..	..	..	..	..	..	..	80
Totals for Quarter...	519	480	282	203	110	86	51	37	16	9	4	2	2	1	..	..	..	..	..	..	219
Totals for Year....	2,264	1,582	1,075	677	435	295	180	115	57	42	9	10	6	4	1	..	..	..	..	..	762

Total Number of Children of Native-born Mothers reported, **7,514.**

TABLE SHOWING THE NUMBER OF CHILDREN BORNE BY EACH MOTHER,

As collected from the Returns of Births received in this Bureau, for the Twelve Months ending December 31, 1875.

Months.	Foreign Mothers.																				
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	Not Stated.
January	267	231	197	149	116	86	68	42	36	22	13	6	1	1	..	1	..	..	..	..	254
February	251	193	175	118	119	67	60	36	32	13	7	7	2	..	..	..	..	..	..	..	216
March	290	241	180	142	94	92	84	49	32	13	9	5	4	..	..	..	..	..	..	..	285
Totals for Quarter	808	665	552	409	329	245	212	127	100	48	29	18	7	1	..	1	..	..	..	..	755
April	269	206	181	114	105	67	57	25	24	17	12	6	3	..	1	..	..	..	..	..	244
May	223	165	148	111	94	55	47	38	24	10	5	5	3	1	..	..	1	..	..	..	194
June	236	193	198	146	97	72	54	42	24	18	8	2	5	3	..	..	..	..	..	..	211
Totals for Quarter	728	564	527	371	296	194	158	105	72	45	25	13	11	4	1	..	1	..	..	..	649
July	270	205	180	148	125	73	45	41	32	27	14	5	3	2	..	..	..	..	..	..	224
August	251	256	183	168	120	81	66	30	25	16	14	6	5	..	..	..	..	..	..	..	206
September	273	228	275	160	87	84	49	34	25	18	14	4	5	3	..	1	..	..	..	..	210
Totals for Quarter	794	689	638	476	332	238	160	105	82	61	42	15	13	5	..	1	..	..	..	..	640
October	220	223	193	148	107	96	62	47	25	20	10	10	4	1	..	..	1	..	..	..	188
November	234	200	151	150	93	64	70	27	21	9	8	2	8	1	..	..	..	..	..	..	222
December	232	209	189	157	113	93	67	43	26	12	15	3	4	..	..	..	..	..	..	..	186
Totals for Quarter	686	632	533	455	313	253	199	117	72	41	33	15	16	2	..	..	1	..	..	..	596
Totals for Year	3,016	2,550	2,250	1,711	1,270	930	729	454	326	195	129	61	47	12	1	2	2	..	..	..	2,640

Total Number of Children of Foreign-born Mothers reported, **16,325.**

TABLE SHOWING NATIVITY OF PARENTS

Nativities.	January.		February.		March.		April.		May.	
	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.
Austria	71	68	38	40	82	62	42	42	54	60
At Sea	....	....	....	....	1	....	....	....	1	...
Africa	....	....	....	....	....	....	....	....	....	....
Asia	....	1	....	1	1	....	....	....	1	....
Belgium	....	3	....	1	1	....	2	2	....	3
British America	11	12	15	8	15	9	12	11	8	11
Denmark	1	3	3	2	1	5	4	....	1	1
England	85	91	86	84	66	70	65	68	61	56
Europe (country not stated)	16	14	9	12	12	13	13	11	13	14
East Indies	....	....	....	....	....	....	....	....	....	....
France	31	42	24	26	14	20	20	24	37	36
Foreign	....	....	....	....	....	....	....	....	....	....
Germany	861	927	739	818	787	840	778	757	640	714
Greece	....	....	....	....	....	....	....	....	....	1
Holland	8	8	4	6	4	4	5	7	6	11
Ireland	426	420	397	379	452	412	385	395	439	419
Italy	12	10	3	5	10	11	3	6	9	10
Mexico	....	....	....	....	....	....	....	....	....	....
Norway	1	2	2	2	1	1	4	3	1	....
New Zealand	....	....	....	....	....	....	....	....	....	....
Poland	20	24	24	31	8	15	18	23	13	16
Portugal	....	1	....	1	....	....	....	....	....	....
Russia	1	7	14	18	14	23	1	6	8	9
Switzerland	11	14	9	11	8	7	8	9	12	20
Scotland	16	17	18	28	19	19	24	23	13	20
South America	....	1	....	....	....	....	....	....	1	....
Spain	2	2	....	3	1	2	2	3	1	2
Sweden	10	11	10	10	8	8	13	13	9	11
Turkey	1	1	....	....	....	....	....	1	....	....
United States	573	457	544	442	624	590	432	416	532	420
Unknown	3	24	12	24	5	22	15	26	8	28
West Indies	6	7	3	4	4	5	9	8	1	5
Wales	2	1	3	1	2	2	1	2	....	2
Totals	2,168	2,168	1,957	1,957	2,140	2,140	1,856	1,856	1,869	1,869

OF CHILDREN BORN IN THE YEAR 1874.

JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTALS.
Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	
57	50	46	50	34	39	29	25	41	43	50	49	53	59	1,184
....	1	....	....	....	....	1	2	1	1	1	1	1	....	11
....	1	....	....	....	1	....	....	....	1	1	....	1	....	5
....	....	....	....	....	....	....	....	....	1	....	1	....	1	7
1	....	1	1	2	4	1	2	....	4	1	1	....	4	34
9	14	9	20	6	13	13	11	13	12	11	5	15	10	273
2	3	....	3	3	4	6	8	....	4	1	4	1	3	63
72	81	81	93	76	80	63	76	65	62	53	55	74	84	1,747
11	14	6	8	14	15	15	17	10	11	11	14	13	13	299
....	....	....	1	....	....	....	....	....	....	....	....	....	....	1
45	40	21	37	20	37	15	27	26	34	22	31	29	32	690
....	....	1	1	....	....	2	1	....	....	....	....	1	1	7
764	864	902	1,004	819	933	747	854	789	992	765	882	798	898	19,872
....	....	....	....	....	1	....	....	....	....	....	....	....	....	2
5	8	7	11	....	1	5	6	5	8	3	5	3	7	137
468	459	536	512	544	523	500	441	487	462	469	467	492	462	10,946
13	15	17	13	11	17	9	16	13	21	7	11	9	15	266
....	....	1	....	....	....	2	1	....	....	....	....	....	....	4
2	4	....	3	1	1	4	2	3	2	....	....	2	3	44
....	....	....	....	....	....	...	....	....	....	1	....	....	....	1
31	43	17	34	5	15	11	17	29	36	13	21	20	29	513
1	2	....	....	....	....	....	....	....	....	....	1	....	1	7
15	15	3	9	11	16	6	10	21	25	6	2	9	12	261
15	15	10	15	10	10	13	13	7	11	10	8	8	6	260
22	18	25	26	19	36	23	25	17	17	19	31	18	30	523
1	1	1	2	....	1	1	1	....	2	2	....	....	1	15
2	1	....	2	....	2	1	1	1	1	1	2	....	4	36
11	11	4	6	11	14	5	8	9	10	3	5	9	10	219
....	....	1	....	....	....	....	....	....	....	....	....	....	....	4
719	595	723	537	716	525	675	575	668	422	647	480	657	510	13,479
12	20	3	22	4	19	11	22	16	38	16	34	8	23	415
2	6	3	8	3	4	11	9	6	6	2	4	4	7	127
3	2	1	1	3	1	3	2	2	3	1	2	1	1	42
2,283	2,283	2,419	2,419	2,312	2,312	2,172	2,172	2,229	2,229	2,116	2,116	2,226	2,226	51,494

NATIVITY OF PARENTS OF CHILDREN BORN IN NEW YORK CITY AND

Nativity of Mother.	Totals.	Nativity of Father.														
		Austria.	Africa.	Australia.	Belgium.	British America.	China.	Central America.	Denmark.	England.	Europe.	East Indies.	France.	Germany.	Holland.	Ireland.
Austria	681	588	..	..	..	...	..	..	..	...	..	..	...	67	..	1
Africa	1	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
Australia	1	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
Belgium	16	...	..	..	5	...	..	..	..	...	..	..	5	5	..	....
British America	123	...	..	..	..	24	..	..	..	8	..	..	4	8	..	21
China	1	...	..	..	..	...	1	..	..	...	..	..	...	....	..	....
Central America	.....	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
Denmark	19	...	..	..	..	...	..	..	14	...	..	..	...	....	..	1
England	674	2	..	..	..	13	..	..	4	245	..	..	13	72	10	98
Europe	1	...	..	..	..	...	..	..	..	...	1	..	...	....	..	....
East Indies	1	...	..	..	..	...	..	..	..	...	..	..	...	1	..	....
France	253	2	1	..	7	2	..	..	1	4	..	..	156	31	2	8
Germany	8,427	75	..	..	3	3	..	..	4	25	..	..	38	7,700	18	28
Holland	62	...	..	..	..	...	..	..	..	1	..	..	1	3	48	1
Ireland	5,093	5	1	..	3	31	3	..	4	152	..	..	29	136	6	4.073
Italy	132	...	..	..	..	2	..	..	..	1	..	..	2	2	..	....
India	1	...	..	..	..	...	..	..	..	...	..	..	...	...	..	....
Mexico	2	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
Norway	13	...	..	..	..	...	..	..	..	...	..	..	...	1	..	...
Poland	199	1	..	..	..	...	..	..	..	1	..	..	1	13	1	....
Portugal	1	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
Russia	74	...	..	..	..	...	..	..	..	...	..	..	1	2	..	....
Scotland	173	...	..	..	..	3	..	..	..	15	..	..	2	8	..	25
Sweden	81	...	..	..	..	...	..	..	4	...	..	..	...	4	..	....
Switzerland	97	...	..	..	1	...	..	..	..	...	..	..	6	33	..	3
Spain	12	...	..	..	..	...	..	..	..	...	..	..	...	3	..	....
Sea (at)	2	...	..	..	..	...	..	..	..	1	..	..	...	1	..	....
Sandwich Islands	1	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
South America	2	...	..	..	..	...	..	..	..	...	1	..	...	1	..	....
Turkey	.....	...	..	..	..	...	..	..	..	...	..	..	...	....	..	....
United States	7,514	30	2	..	4	61	..	1	16	241	1	..	71	1,470	10	751
Unknown	95	1	..	..	..	1	..	..	..	4	..	..	1	22	..	3
Wales	23	...	..	..	..	...	..	..	1	3	..	..	...	1	..	2
West Indies	38	...	..	..	..	...	..	..	..	...	..	..	...	1	..	2
Totals for year	23,813	704	4	..	23	140	4	1	48	701	3	..	330	9,585	95	5,017

REPORTED TO THE BUREAU OF VITAL STATISTICS DURING THE YEAR 1875.

Nativity of Father.

Italy.	India.	Mexico.	Norway.	Poland.	Portugal.	Russia.	Scotland.	Sweden.	Switzerland.	Spain.	Sea (at).	Sandwich Islands.	South America.	Turkey.	United States.	Unknown.	Wales.	West Indies.
1	..	..	...	2	..	5	....	..	....	..	..	..	..	..	9	8	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	1	....	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	1	....	..	..
....	..	..	...	....	..	....	....	..	1	..	..	..	..	..	....	....	..	..
1	..	..	...	....	..	2	3	..	....	1	..	..	..	..	49	2	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
....	..	..	...	....	..	....	....	1	....	..	..	..	..	..	1	2	..	..
2	..	..	1	8	..	4	23	5	3	..	..	..	..	1	162	5	3	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
6	..	..	1	....	..	3	2	..	5	2	..	..	..	..	13	6	..	1
7	..	1	2	75	..	31	2	3	46	4	..	..	..	..	281	78	..	3
....	..	..	....	1	..	1	1	..	....	..	..	..	..	..	4	....	..	1
10	..	..	7	1	..	1	52	13	5	8	..	..	1	..	507	35	4	6
118	..	..	...	....	..	....	1	..	1	..	..	..	..	..	3	2	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	1	....	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	1	1	..	..
....	..	..	10	....	..	....	....	1	1	..	..	..	..	..	....	....	..	..
....	..	..	...	176	..	3	....	..	....	..	..	..	..	..	2	1	..	..
....	..	..	...	....	1	....	....	..	....	..	..	..	..	..	....	....	..	..
....	..	..	...	1	..	69	....	..	....	..	..	..	..	..	1	....	..	..
....	..	..	...	1	..	1	80	1	....	..	..	..	..	..	34	2	..	1
....	..	..	2	....	..	...	....	66	....	1	..	..	..	..	4	....	..	..
1	..	..	1	....	..	....	....	..	45	..	..	..	..	..	4	3	..	..
....	..	..	...	....	..	....	....	..	....	7	..	..	..	..	....	....	..	2
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
....	..	..	...	....	..	....	....	..	...	..	..	..	..	..	1	....	..	..
....	..	..	...	....	..	....	....	..	...	..	..	..	..	..	....	....	..	..
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	....	....	..	..
14	..	2	1	21	1	13	73	7	31	5	1	..	5	1	4,524	111	12	34
1	..	..	...	2	..	1	1	..	....	..	..	..	..	..	14	40	1	3
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	5	....	9	2
....	..	..	...	....	..	....	....	..	....	..	..	..	..	..	6	....	..	29
161	..	3	25	288	2	134	238	97	138	28	1	..	6	2	5,628	296	29	82

YEARLY ABSTRACT OF BIRTHS REGISTERED IN THIS BUREAU DURING THE PAST NINE YEARS.

Years.	Totals.	Color.			Sex.			Nativity of Parents.									Name of Child.	
												Nativity of Father stated only.		Nativity of Mother stated only.				
		White.	Colored.	Not stated.	Male.	Female.	Not stated.	Foreign.	Native.	Foreign Father only.	Foreign Mother only.	Native.	Foreign.	Native.	Foreign.	Not stated.	Stated.	Not stated.
1867	12,535	12,389	144	2	6,464	6,068	3	8,020	2,241	1,045	638	..	..	..	...	591	8,145	4,390
1868	12,590	12,488	101	1	6,443	6,134	13	8,264	2,162	1,019	510	2	11	62	534	26	8,466	4,124
1869	13,947	13,755	192	..	7,096	6,835	16	9,080	2,457	1,227	555	5	10	59	522	32	9,945	4,002
1870	14,524	14,353	169	2	7,560	6,910	54	9,283	2,553	1,459	829	2	17	75	286	20	9,987	4,537
1871	20,821	20,595	226	..	10,749	10,032	40	14,144	3,631	1,914	835	2	16	124	125	30	14,551	6,270
1872	22,068	21,769	299	..	11,282	10,763	23	14,829	3,721	2,175	969	12	25	104	206	27	15,311	6,757
1873	22,683	22,465	218	..	11,707	10,917	59	15,353	3,827	2,261	889	21	44	114	127	47	15,992	6,691
1874	25,747	25,514	233	..	13,276	12,387	84	16,594	4,728	2,811	1,069	76	34	176	160	99	17,334	8,413
1875	23,813	23,559	253	1	12,054	11,669	90	15,067	4,528	2,902	1,021	21	36	106	105	27	16,130	7,683
Totals	168,728	166,887	1,835	6	86,631	81,715	382	110,654	29,848	16,813	7,315	141	193	820	2,065	899	115,861	52,867

NUMBER OF BIRTHS RECEIVED IN THIS BUREAU EACH MONTH DURING THE PAST TEN YEARS.

Years.	Months.												Totals.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1866	367	472	545	583	921	915	945	1,236	1,145	922	973	982	10,006
1867	1,115	1,053	1,149	898	1,012	1,036	1,180	1,147	1,102	1,087	974	782	12,535
1868	1,105	1,141	1,091	925	930	975	1,134	1,077	1,156	1,085	1,069	902	12,590
1869	1,224	1,075	1,440	1,220	764	849	1,103	1,263	1,484	1,027	1,241	1,257	13,947
1870	1,254	1,221	1,375	1,067	1,092	1,080	1,139	1,405	1,004	1,285	1,085	1,517	14,524
1871	1,708	1,809	1,808	1,320	1,512	1,439	1,741	1,918	1,764	1,936	1,915	1,951	20,821
1872	1,899	1,710	1,870	1,721	1,688	1,579	1,882	1,998	1,988	1,963	1,886	1,884	22,068
1873	1,969	1,761	1,809	1,706	1,571	1,651	2,112	2,080	2,122	1,928	1,923	2,051	22,683
1874	2,168	1,957	2,140	1,856	1,869	2,283	2,419	2,312	2,172	2,229	2,116	2,226	25,747
1875	2,100	1,888	2,209	1,927	1,670	1,922	2,046	2,086	1,976	1,996	1,952	2,041	23,813
Totals	14,905	14.087	15,436	13,223	13,029	13,729	15,701	16,522	15,913	15,458	15,134	15,593	178,734

MARRIAGES.

The number of marriages registered during the year 1875 was 7,565, which is 832 less than the number reported during the year 1874. 7,403 were white and 162 were colored males, and 7,409 were white and 156 colored females. There were 2,508 males born in the United States, 4,880 foreign born, 2 born at sea, and the nativity of 175 was not stated. 3,304 females were born in the United States, 4,073 were foreign born, 4 were born at sea, and the nativity of 184 was not stated. 6,121 males were married the first time, 1,101 the second, 75 the third, 7 the fourth, and 261 were reported without the number of their marriage having been stated. 6,284 females married the first time, 909 the second time, 30 the third time, and the number of the marriage of 342 was not stated. 162 males were married under the age of 20 years, 2,586 between 20 and 25 years, 2,355 between 25 and 30 years, 1,095 between 30 and 35 years, 613 between 35 and 40 years, 290 between 40 and 45 years, 173 between 45 and 50 years, 105 between 50 and 55 years, 61 between 55 and 60 years, 33 between 60 and 65 years, 10 between 65 and 70 years, 8 between 70 and 80 years, 1 between 80 and 90 years, and the age of 73 was not stated. The number of females married under 20 was 1,903; from 20 to 25, 3,040; from 25 to 30, 1,416; from 30 to 35, 539; from 35 to 40, 305; from 40 to 45, 126; from 45 to 50, 84; from 50 to 55, 28; from 55 to 60, 14; from 60 to 65, 4; from 65 to 70, 2; and the ages of 104 were not stated.

ABSTRACT OF THE REGISTRY OF MARRIAGES IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1874.

1874.	Totals.	Color.				Nativity.								Condition.											
		White.		Black.		Foreign.		Native.		Born at Sea.		Not Stated.		1st Marriage.		2d Marriage.		3d Mar'ge.		4th Mar'ge.		5th Mar'ge.		Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	639	616	618	23	21	386	313	237	309	..	..	16	17	514	536	96	74	5	3	..	..	..	..	24	26
February	622	599	604	23	18	415	357	185	243	1	..	21	22	485	513	99	68	7	6	..	..	..	..	31	35
March	611	594	595	17	16	414	349	187	253	..	..	10	9	488	503	96	84	7	2	..	..	..	..	20	22
Totals First Quarter	1,872	1,809	1,817	63	55	1,215	1,019	609	805	1	..	47	48	1,487	1,552	291	226	19	11	..	..	..	..	75	83
April	765	742	743	23	22	480	406	271	340	1	2	13	17	614	626	111	91	2	3	2	..	..	..	36	45
May	806	787	788	19	18	550	457	235	328	..	..	21	21	634	681	131	78	5	7	..	..	..	..	36	40
June	781	755	761	26	20	457	386	280	349	1	1	43	45	643	639	79	84	6	2	1	..	..	..	52	56
Totals Second Quarter	2,352	2,284	2,292	68	60	1,487	1,249	786	1,017	2	3	77	83	1,891	1,946	321	253	13	12	3	..	..	..	124	141
July	655	640	640	15	15	436	365	200	271	..	..	19	19	517	533	104	86	9	1	1	..	..	..	24	35
August	538	533	533	5	5	348	310	178	216	..	..	12	12	421	432	97	77	4	3	..	..	..	..	16	26
September	723	710	713	13	10	457	385	238	307	..	1	28	30	584	595	95	78	9	1	1	1	..	..	34	48
Totals Third Quarter	1,916	1,883	1,886	33	30	1,241	1,060	616	794	..	1	59	61	1,522	1,560	296	241	22	5	2	1	..	..	74	109
October	830	808	808	22	22	471	403	342	408	..	..	17	19	693	700	110	94	7	2	..	..	..	..	20	34
November	737	717	716	20	21	445	369	264	337	..	..	28	31	608	624	88	69	8	3	...	1	..	..	33	40
December	690	674	676	16	14	411	343	258	326	..	..	21	21	575	575	90	72	2	7	..	..	..	..	23	36
Totals Fourth Quarter	2,257	2,199	2,200	58	57	1,327	1,115	864	1,071	..	..	66	71	1,876	1,899	288	235	17	12	..	1	..	..	76	110
Totals for the Year	8,397	8,175	8,195	222	202	5,270	4,443	2,875	3,687	3	4	249	263	6,776	6,957	1,196	955	71	40	5	2	..	..	349	443

ABSTRACT OF THE REGISTRY OF MARRIAGES IN THE CITY OF NEW YORK,

For the Twelve Months ending December 31, 1875.

1875.	Totals.	Color.				Nativity.								Condition.											
		White.		Black.		Foreign.		Native.		Born at Sea.		Not Stated.		1st Marriage.		2d Marriage		3d Mar'ge.		4th Mar'ge.		5th Mar'ge.		Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	583	567	569	16	14	351	295	211	266	2	..	19	22	466	481	94	78	6	..	1	..	..	..	16	24
February	579	567	566	12	13	394	334	162	223	..	..	23	22	469	491	88	64	3	1	..	..	..	..	19	23
March	489	480	481	9	8	332	278	156	208	..	..	1	3	396	405	74	63	4	3	..	..	..	..	15	18
Totals First Quarter	1,651	1,614	1,616	37	35	1,077	907	529	697	2	..	43	47	1,331	1,377	256	205	13	4	1	..	..	..	50	65
April	724	711	713	13	11	462	382	241	318	..	1	21	23	584	606	106	81	8	3	..	..	..	..	26	34
May	736	724	724	12	12	503	417	221	307	..	..	12	12	606	629	100	78	10	3	..	..	..	..	20	26
June	677	655	655	22	22	426	349	238	316	..	..	13	12	547	564	98	75	6	4	..	..	..	..	26	34
Totals Second Quarter	2,137	2,090	2,092	47	45	1,391	1,148	700	941	..	1	46	47	1,737	1,799	304	234	24	10	..	..	..	..	72	94
July	649	642	641	7	8	440	369	197	263	..	1	12	16	526	544	99	78	7	2	1	..	..	..	16	25
August	518	511	512	7	6	381	332	126	178	..	..	11	8	419	418	78	73	9	5	..	..	..	..	12	22
September	620	601	602	19	18	389	319	219	284	..	2	12	15	494	501	93	82	4	3	1	..	..	..	28	34
Totals Third Quarter	1,787	1,754	1,755	33	32	1,210	1,020	542	725	..	3	35	39	1,439	1,463	270	233	20	10	2	..	..	..	56	81
October	710	694	694	16	16	424	351	262	335	..	..	24	24	576	601	104	76	7	3	3	..	..	..	20	30
November	732	719	719	13	13	460	382	260	337	..	..	12	13	602	604	89	87	7	2	1	..	..	..	33	39
December	548	532	533	16	15	318	265	215	269	..	..	15	14	436	440	78	74	4	1	..	..	..	..	30	33
Totals Fourth Quarter.	1,990	1,945	1,946	45	44	1,202	998	737	941	..	..	51	51	1,614	1,645	271	237	18	6	4	..	..	..	83	102
Totals for the Year	7,565	7,403	7,409	162	156	4,880	4,073	2,508	3,304	2	4	175	184	6,121	6,284	1,101	909	75	30	7	..	..	..	261	342

AGES OF PERSONS MARRIED DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1874.

1874.	Age.																											
	Under 20		20 to 25		25 to 30		30 to 35		35 to 40		40 to 45		45 to 50		50 to 55		55 to 60		60 to 65		65 to 70		70 to 80		80 to 90		Not Stated.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	12	168	205	256	213	113	103	44	41	27	28	9	18	8	6	1	2	1	2	..	..	..	..	..	..	..	9	12
February	19	163	211	230	210	134	65	33	47	26	21	13	21	9	10	1	2	1	2	..	3	..	..	..	..	..	11	12
March	20	172	199	239	193	102	98	43	40	28	27	12	16	3	7	3	2	2	2	..	..	..	1	..	..	..	6	7
Totals First Quarter	51	503	615	725	616	349	266	120	128	81	76	34	55	20	23	5	6	4	6	..	3	..	1	..	..	..	26	31
April	21	193	239	313	247	140	129	55	63	36	39	13	16	6	6	1	..	1	2	..	..	..	1	..	..	..	2	7
May	14	170	244	359	251	137	130	66	74	33	33	15	27	7	13	5	5	2	2	1	1	..	1	..	..	..	11	11
June	19	173	248	329	265	158	109	49	46	23	33	13	22	6	6	..	4	..	1	1	..	..	1	..	..	..	27	29
Totals Second Quarter	54	536	731	1,001	763	435	368	170	183	92	105	41	65	19	25	6	9	3	5	2	1	..	3	..	..	..	40	47
July	17	172	227	256	203	124	84	50	46	26	34	7	20	6	10	2	3	3	1	..	1	..	1	..	..	..	8	9
August	15	145	175	207	159	79	82	39	51	27	20	15	12	5	10	3	3	..	1	..	..	..	1	..	..	..	9	18
September	15	180	277	304	190	123	115	53	54	34	28	6	23	2	6	3	3	..	2	..	..	..	..	..	..	..	10	18
Totals Third Quarter	47	497	679	767	552	326	281	142	151	87	82	28	55	13	26	8	9	3	4	..	1	..	2	..	..	..	27	45
October	15	200	287	353	275	146	114	62	51	27	31	17	23	7	15	1	5	2	2	1	3	..	1	..	..	..	8	14
November	28	185	220	303	255	141	115	46	55	30	24	11	20	7	7	4	2	1	1	..	2	..	2	..	..	..	6	9
December	23	192	235	271	221	123	89	46	60	23	21	12	20	11	5	3	7	..	2	1	..	1	1	..	..	..	6	7
Totals Fourth Quarter	66	577	742	927	751	410	318	154	166	80	76	40	63	25	27	8	14	3	5	2	5	1	4	..	..	..	20	30
Totals for the Year	218	2,113	2,767	3,420	2,682	1,520	1,233	586	628	340	339	143	238	77	101	27	38	13	20	4	10	1	10	..	..	..	113	153

AGES OF PERSONS MARRIED DURING THE TWELVE MONTHS ENDING DECEMBER 31, 1875.

1875.	Age.																											
	Under 20		20 to 25		25 to 30		30 to 35		35 to 40		40 to 45		45 to 50		50 to 55		55 to 60		60 to 65		65 to 70		70 to 80		80 to 90		Not Stated.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	16	140	191	250	182	102	93	47	47	19	23	10	10	5	10	2	2	..	1	..	..	..	2	..	..	..	6	8
February	11	151	185	223	186	120	84	43	51	20	24	6	14	5	5	1	6	..	3	..	..	..	..	..	..	..	10	10
March	12	138	177	185	142	94	82	26	34	23	14	9	8	3	8	1	3	1	4	..	..	..	..	..	..	..	5	9
Totals First Quarter	39	429	553	658	510	316	259	116	132	62	61	25	32	13	23	4	11	1	8	..	..	..	2	..	..	..	21	27
April	27	189	228	289	231	138	112	46	55	31	22	8	12	7	10	2	9	4	5	..	4	..	..	..	..	..	9	10
May	15	166	264	322	220	136	107	46	61	35	30	12	17	6	9	1	2	2	1	..	..	..	1	..	1	..	8	10
June	17	177	248	267	198	125	91	47	63	26	21	13	11	8	11	4	7	2	3	2	1	..	2	..	..	..	4	6
Totals Second Quarter	59	532	740	878	649	399	310	139	179	92	73	33	40	21	30	7	18	8	9	2	5	..	3	..	1	..	21	26
July	13	168	230	249	203	130	89	51	47	20	29	10	17	10	9	..	2	1	4	..	1	..	1	..	..	..	4	10
August	6	114	163	197	152	105	83	45	54	28	18	13	17	9	14	4	5	1	3	..	1	..	..	..	..	..	2	2
September	12	166	223	235	188	103	83	43	40	26	35	15	10	9	7	3	7	1	3	..	..	..	1	..	..	..	11	19
Totals Third Quarter	31	448	616	681	543	338	255	139	141	74	82	38	44	28	30	7	14	3	10	..	2	..	2	..	..	..	17	31
October	12	185	230	277	238	122	94	59	58	30	29	16	26	9	8	3	6	..	2	1	1	..	..	..	..	..	6	8
November	13	181	259	305	236	140	101	54	62	26	24	10	16	6	8	4	6	1	2	1	1	..	1	..	..	..	3	4
December	8	128	188	241	179	101	76	32	41	21	21	4	15	7	6	3	6	1	2	..	1	2	..	..	..	..	5	8
Totals Fourth Quarter	33	494	677	823	653	363	271	145	161	77	74	30	57	22	22	10	18	2	6	2	3	2	1	..	..	..	14	20
Totals for the Year	162	1,903	2,586	3,040	2,355	1,416	1,095	539	613	305	290	126	173	84	105	28	61	14	33	4	10	2	8	..	1	..	73	104

MALES AND FEMALES—ALL CONDITIONS, 1874.

Ages of Females.	Ages of Males—All Conditions.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	159	1,121	523	129	44	15	5	..	..	..	..	..	..	1,996
20–25..........	37	1,255	1,246	488	138	45	18	9	2	2	..	..	..	3,240
25–30..........	5	194	577	308	192	77	42	17	2	2	..	2	..	1,418
30–35..........	...	27	138	148	112	79	43	14	2	1	1	2	..	567
35–40..........	...	9	37	61	77	61	54	24	9	3	..	..	..	335
40–45..........	...	1	14	12	21	34	33	9	8	3	1	1	..	137
45–50..........	...	....	1	6	11	10	21	12	8	5	4	1	..	79
50–55..........	...	....	....	...	...	4	8	9	1	2	1	2	..	27
55–60..........	...	....	....	...	...	2	4	3	1	1	3	..	1	15
60–65..........	...	....	....	...	...	..	..	..	1	1	..	2	..	4
65–70..........	...	....	....	...	...	..	..	..	1	..	..	..	..	1
Totals.....	201	2,607	2,536	1,152	595	327	228	97	35	20	10	10	1	7,819

MALES AND FEMALES—ALL CONDITIONS, 1875.

Ages of Females.	Ages of Males—All Conditions.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	108	979	441	133	30	8	5	..	..	..	..	1	..	1,705
20–25..........	30	1,082	1,058	370	137	42	21	4	4	..	1	..	..	2,749
25–30..........	2	196	527	288	172	52	25	12	3	4	1	..	..	1,282
30–35..........	1	32	90	136	101	68	37	16	6	3	2	2	..	494
35–40..........	...	10	29	50	73	45	34	21	13	5	..	1	..	281
40–45..........	...	2	4	11	22	34	23	13	6	4	2	..	..	121
45–50..........	...	1	....	3	7	10	19	19	11	7	2	1	..	80
50–55..........	...	....	....	2	3	..	3	8	11	1	1	1	..	30
55–60..........	...	....	....	...	...	2	..	3	2	3	1	3	..	14
60–65..........	...	....	....	...	...	..	..	..	2	1	..	1	..	4
65–70..........	...	....	....	...	...	..	..	..	..	1	1	..	..	2
Totals.....	141	2,302	2,149	993	545	261	167	96	58	29	11	10	..	6,762

BACHELORS AND SPINSTERS, 1874.

Ages of Spinsters.	Ages of Bachelors.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	158	1,107	496	98	28	8	3	..	..	..	..	..	..	1,898
20–25..........	37	1,207	1,154	369	77	10	8	2	..	..	..	..	..	2,864
25–30..........	4	156	468	215	91	19	7	5	..	..	..	..	..	965
30–35..........	...	14	64	74	44	17	8	3	..	..	..	1	..	225
35–40.........	...	....	11	17	19	11	8	2	..	1	..	..	..	69
40–45..........	...	....	2	1	9	9	3	..	..	1	..	..	..	25
45–50..........	...	....	....	2	2	..	3	1	..	1	..	..	..	9
50–55..........	...	....	....	...	..	..	2	..	..	..	..	..	..	2
55–60..........	...	....	....	...	..	..	..	2	..	..	..	..	..	2
60–65.....	...	....	....	...	..	..	..	..	..	..	..	1	..	1
65–70..........	...	....	....	...	..	..	..	..	..	..	..	..	..	....
Totals.....	199	2,484	2,195	776	270	74	42	15	..	3	..	2	..	6,060

BACHELORS AND SPINSTERS, 1875.

Ages of Spinsters.	Ages of Bachelors.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	107	969	412	110	14	5	3	..	..	..	..	..	..	1,620
20–25..........	29	1,031	977	291	68	10	2	..	..	..	..	..	..	2,408
25–30..........	1	163	404	185	68	10	2	1	..	..	..	..	..	834
30–35..........	...	16	52	70	38	11	3	..	..	2	..	1	..	193
35–40..........	...	2	12	11	6	8	3	3	..	..	..	..	..	45
40–45..........	...	....	....	3	3	7	2	1	1	..	..	..	..	17
45–50..........	...	....	....	1	..	..	..	2	..	..	..	..	..	3
50–55..........	...	....	....	1	..	..	1	..	..	..	1	1	..	4
55–60..........	...	....	....	...	..	1	..	1	..	..	..	..	..	2
60–65..........	...	....	....	...	..	..	..	..	..	..	..	..	..	....
65–70..........	...	....	....	...	..	..	..	..	..	..	..	..	..	....
Totals.....	137	2,181	1,857	672	197	52	16	8	1	2	1	2	..	5,126

BACHELORS AND WIDOWS, 1874.

Ages of Widows.	Ages of Bachelors.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	1	4	3	...	...	..	..	..	.	..	..	..	..	8
20–25..........	...	35	29	15	4	1	..	1	..	..	..	..	..	85
25–30..........	1	35	61	30	14	5	..	2	..	..	..	..	..	148
30–35..........	...	13	55	42	17	12	3	1	..	..	..	..	..	143
35–40..........	...	9	23	27	23	10	7	1	..	..	..	..	..	100
40–45..........	...	1	12	5	7	10	5	2	1	..	..	1	..	44
45–50..........	...	....	1	3	5	2	2	2	1	..	..	..	..	16
50–55..........	...	....	....	...	...	1	..	..	1	..	..	..	..	2
55-60..........	...	....	....	...	...	..	..	1	..	..	..	..	..	1
60–65..........	...	....	....	...	...	..	..	..	..	..	..	..	..	....
65–70..........	...	....	....	...	...	..	..	..	..	..	..	..	..	....
Totals.....	2	97	184	122	70	41	17	10	3	..	..	1	..	547

BACHELORS AND WIDOWS, 1875.

Ages of Widows.	Ages of Bachelors.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	...	5	3	...	1	..	..	..	..	..	..	..	..	9
20–25..........	1	31	23	10	3	2	..	..	..	..	..	..	..	70
25–30.....	...	31	65	32	18	4	1	..	..	..	..	..	..	151
30–35..........	1	16	28	34	17	14	3	..	..	..	..	..	..	113
35–40..........	...	8	16	30	31	7	3	1	..	1	..	..	..	97
40–45..........	...	2	4	7	10	6	6	1	1	..	1	..	..	38
45–50..........	...	1	....	1	6	1	1	1	..	..	..	..	..	11
50–55..........	...	....	....	...	2	..	..	..	2	..	..	..	..	4
55–60..........	...	....	....	...	...	..	..	..	..	1	..	..	..	1
60–65..........	...	....	....	...	...	..	..	..	1	..	..	..	..	1
65–70..........	...	....	....	...	...	..	..	..	..	..	1	..	..	1
Totals.....	2	94	139	114	88	34	14	3	4	2	2	..	..	496

WIDOWERS AND SPINSTERS, 1874.

Ages of Spinsters.	Ages of Widowers.													Totals.
	Uuder 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	..	9	24	31	16	7	3	..	..	..	..	..	..	90
20–25..........	..	11	58	99	51	31	9	6	2	2	..	..	..	269
25–30..........	..	2	38	47	70	37	28	5	1	2	..	2	..	232
30–35..........	..	..	4	15	24	24	16	6	1	1	1	..	..	92
35–40..........	..	..	2	6	16	17	17	12	4	1	..	..	..	75
40–45..........	..	..	..	1	1	2	4	2	4	1	1	..	..	16
45–50.........	..	..	..	..	2	1	4	1	3	1	2	..	..	14
50–55..........	..	..	..	..	..	1	1	1	..	1	..	1	..	5
55–60..........	..	..	..	..	..	..	1	..	..	..	..	..	..	1
60–65..........	..	..	..	..	..	..	..	..	..	..	..	..	..	....
65–70..........	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Totals.....	..	22	126	199	180	120	83	33	15	9	4	3	..	794

WIDOWERS AND SPINSTERS, 1875.

Ages of Spinsters.	Ages of Widowers.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20......	1	5	26	23	14	3	2	..	..	..	..	1	..	75
20–25..........	..	19	52	63	55	26	18	4	4	..	1	..	..	242
25–30..........	1	2	47	56	62	32	16	9	1	2	1	..	..	229
30–35..........	..	..	5	16	22	25	14	8	5	..	..	..	..	95
35–40..........	..	..	..	3	8	12	9	6	4	2	..	..	..	44
40–45..........	..	..	..	..	1	5	3	1	2	2	..	..	..	14
45–50..........	..	..	..	..	1	..	3	4	1	3	1	1	..	14
50–55..........	..	..	..	..	1	..	..	1	1	..	..	..	..	3
55–60..........	..	..	..	..	..	..	..	..	..	1	..	..	..	1
60–65..........	..	..	..	..	..	..	..	..	..	..	..	..	..	....
65–70..........	..	..	..	..	..	..	..	..	..	..	..	..	..	....
70–75..........	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Totals.....	2	26	130	161	164	103	65	33	18	10	3	2	..	717

WIDOWERS AND WIDOWS, 1874.

Ages of Widows.	Ages of Widowers.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20……	..	1	..	..	..	..	..	..	..	..	..	..	..	1
20–25………	..	2	5	5	6	3	1	..	..	..	..	..	..	22
25–30………	..	1	10	16	17	16	7	5	1	..	..	..	..	73
30–35………	..	..	15	17	27	26	16	4	1	..	..	1	..	107
35–40………	..	..	1	11	19	23	22	9	5	1	..	..	..	91
40–45………	..	..	..	5	4	13	21	5	3	1	..	..	..	52
45–50………	..	..	..	1	1	7	12	8	4	3	2	1	..	39
50–55………	..	..	..	..	..	2	5	8	..	1	1	1	..	18
55–60………	..	..	..	..	..	2	3	..	1	1	3	..	1	11
60–65………	..	..	..	..	..	..	..	..	1	1	..	1	..	3
65–70………	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Totals…..	..	4	31	55	74	92	87	39	17	8	6	4	1	418

WIDOWERS AND WIDOWS, 1875.

Ages of Widows.	Ages of Widowers.													Totals.
	Under 20	20–25	25–30	30–35	35–40	40–45	45–50	50–55	55–60	60–65	65–70	70–75	75–80	
Under 20……	..	..	..	..	1	..	..	..	..	..	..	..	..	1
20–25………	..	1	6	6	11	4	1	..	..	..	..	..	..	29
25–30………	..	..	11	15	24	6	6	2	2	2	..	..	..	68
30–35………	..	..	5	16	24	18	17	8	1	1	2	1	..	93
35–40………	..	..	1	6	28	18	19	11	9	2	..	1	..	95
40–45………	..	..	..	1	8	16	12	10	2	2	1	..	..	52
45–50………	..	..	..	1	..	9	15	12	10	4	1	..	..	52
50–55………	..	..	..	1	..	..	2	7	8	1	..	..	..	19
55–60………	..	..	..	..	..	1	..	2	2	1	1	3	..	10
60–65………	..	..	..	..	..	..	..	..	1	1	..	1	..	3
65–70………	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Totals…..	..	1	23	46	96	72	72	52	35	15	5	6	..	423

MARRIAGES, NATIONALITIES

Months.	January.		February.		March.		April.		May.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Africa	....	....	....	1	1	1	....	....	....	....
Algeria	....	....	....	....	....	....	....	....	....	....
Asia	2	....	....	....	....	....	....	....	....	....
Australia	....	....	....	....	....	....	....	....	1	....
Austria	11	14	13	17	20	14	17	14	21	13
Belgium	....	....	2	....	3	1	2	...	2	....
British America	6	4	4	2	9	8	3	8	8	3
China	....	....	1	....	2	....	....	....	....	....
Denmark	2	2	2	3	5	4	1	2	6	1
East Indies	....	....	....	....	....	....	....	....	....	....
England	36	30	30	20	37	20	33	21	35	31
France	9	9	19	15	11	10	13	10	13	11
Germany	216	163	208	165	232	202	268	221	324	265
Greece	....	....	....	....	....	....	1	....	....	....
Heligoland	....	....	....	....	....	....	1	....	....	....
Holland	1	1	6	3	....	1	3	1	4	2
Ireland	52	57	90	98	35	51	87	93	86	100
Italy	1	....	6	5	6	4	5	3	4	2
Madeira	....	....	....	....	....	....	....	....	....	....
Mauritius	....	....	....	....	....	....	....	....	....	1
Mexico	....	....	1	....	....	....	1	....	1	....
Norway	3	4	1	2	2	1	5	2	2	1
Poland	8	2	3	2	10	5	5	4	5	2
Portugal	....	....	....	....	....	....	1	1	....	....
Roumania	....	....	1	....	....	....	....	....	....	....
Russia	7	4	10	5	8	3	4	1	7	3
Scotland	12	5	6	5	9	6	10	10	14	8
Sea, at	....	....	1	....	....	....	1	2	....	....
South America	1	....	....	....	....	....	1	....	....	....
Spain	1	....	1	..	....	....	1	1	1	....
Sweden	14	9	2	....	12	8	2	3	4	3
Switzerland	2	8	8	14	7	6	10	10	10	7
Turkey	....	....	....	....	....	....	1	....	....	....
United States	236	308	184	242	187	255	271	339	234	329
Unknown	16	17	21	22	10	9	13	17	21	21
Wales	...	....	....	1	1	1	1	1	1	....
West Indies	3	2	2	....	4	1	4	1	2	3
Totals	639	639	622	622	611	611	765	765	806	806

BY COUNTRIES, 1874.

June.		July.		August.		September.		October.		November.		December.		Totals.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	1	....	....	....	....	....	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
14	15	14	13	14	10	11	9	18	10	18	18	27	24	369
....	....	1	1	1	2	1	2	....	....	3	....	1	1	23
4	7	7	4	6	6	8	5	3	9	5	6	2	12	139
1	....	2	....	....	....	....	....	....	....	....	....	....	....	6
2	2	2	1	3	1	2	2	2	1	3	3	4	2	58
....	....	....	1	....	....	....	....	....	....	....	....	....	....	1
34	27	41	24	30	24	30	26	30	24	29	25	27	26	690
14	12	6	2	16	10	14	14	13	10	9	11	14	12	277
252	198	236	199	163	146	222	185	268	226	236	174	223	172	5,164
....	....	....	....	....	1	....	....	....	....	....	....	....	....	2
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
6	2	2	1	1	3	4	....	5	1	3	1	2	1	54
84	89	74	91	75	88	102	101	82	97	86	98	64	59	1,939
4	2	2	3	2	1	7	5	1	1	4	3	4	4	79
....	....	....	2	....	....	....	....	....	....	....	....	....	....	2
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
1	....	....	....	....	....	....	....	....	....	1	....	....	....	5
2	....	4	2	2	1	5	3	1	1	1	....	6	6	57
11	3	4	2	4	1	5	3	5	2	7	3	3	4	103
....	....	....	....	....	....	1	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
3	5	2	2	8	2	3	1	8	4	6	3	6	....	105
10	10	14	6	7	4	7	7	9	4	13	6	7	7	196
1	1	....	....	....	....	....	1	....	....	....	1	....	....	8
....	....	2	....	....	....	2	....	1	....	1	....	....	....	8
1	....	2	....	....	....	1	1	2	....	1	....	....	....	13
4	4	5	1	5	5	11	8	5	2	6	3	8	4	128
7	9	13	5	8	2	12	10	9	10	11	12	7	7	204
....	....	....	....	....	....	....	....	1	....	....	....	....	....	2
281	345	199	273	178	216	241	308	342	407	264	337	259	327	6,562
44	47	17	19	12	13	29	30	17	19	28	31	22	21	516
....	....	4	....	....	....	1	1	2	2	....	1	1	....	18
1	3	2	2	3	2	4	1	6	....	2	1	3	1	53
781	781	655	655	538	538	723	723	830	830	737	737	690	690	16,794

NATIVITY OF PERSONS MARRIED

Nativity of Bride.	Nativity of Groom.													
	Africa.	Austria.	Australia.	Belgium.	British America.	China.	Denmark.	England.	France.	Germany.	Greece.	Holland.	India.	Ireland.
Africa	..	..	..	..	..	..	..	..	1	...	..	..	..	..
Austria	..	99	..	..	..	..	..	1	1	32	..	..	..	..
Australia	..	..	..	..	..	..	..	..	..	...	..	..	..	..
Belgium	..	..	..	1	..	..	..	..	2	1	.	..	..	..
British America	..	1	..	..	4	..	..	5	1	6	..	..	..	8
China	..	..	..	..	..	..	..	..	..	...	..	..	..	..
Denmark	..	..	..	..	..	..	7	..	..	6	..	..	..	..
England	..	1	..	1	5	1	1	90	3	28	1	4	..	17
France	1	1	..	2	3	..	..	4	71	13	..	..	..	3
Germany	..	46	..	4	3	..	5	10	10	1,839	..	6	..	1
Greece	..	1	..	..	..	..	..	..	..	...	..	..	..	..
Holland	..	..	..	1	..	..	..	2	..	4	..	8	..	..
India	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Ireland	..	..	..	2	7	..	1	35	13	32	..	4	..	686
Italy	..	..	..	..	..	..	..	1	..	...	..	..	..	1
Norway	..	..	..	..	..	..	1	..	..	...	..	..	..	..
Poland	..	..	..	..	..	..	..	..	..	3	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	...	..	..	..	..
Russia	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Scotland	..	..	..	..	..	..	..	14	..	8	..	..	..	7
Sea, at	..	..	..	..	..	..	..	..	..	1	..	..	..	..
South America	..	..	..	..	..	..	..	..	..	...	..	..	..	..
Spain	..	..	..	..	..	..	..	..	..	...	..	..	..	..
Sweden	..	..	..	..	..	..	1	1	..	1	..	..	..	2
Switzerland	..	..	..	..	..	..	1	..	7	35	..	1	..	1
Turkey	..	..	..	..	..	..	..	..	..	...	..	..	..	..
United States	..	30	2	3	34	..	9	127	28	656	..	5	3	176
Unknown	..	1	..	..	..	..	1	..	..	2	..	..	..	6
Wales	..	..	..	..	..	..	..	2	..	1	..	..	..	1
West Indies	..	..	..	..	..	..	..	..	1	...	..	..	..	1
Totals	1	180	2	14	56	1	27	292	138	2,670	1	28	3	910

DURING THE YEAR 1875.

Nativity of Groom.																Totals.
Italy.	Norway.	Poland.	Portugal.	Russia.	Scotland.	Sea, at.	South America.	Spain.	Sweden.	Switzerland.	Turkey.	United States.	Unknown.	Wales.	West Indies.	
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2
1	..	4	..	2	..	..	..	..	..	..	..	8	1	..	..	149
..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	....
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	5
1	..	..	1	1	2	..	..	..	..	1	..	17	..	..	..	48
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
..	1	..	..	..	..	..	..	..	4	..	..	1	..	..	..	19
2	..	2	..	..	9	..	1	..	1	4	..	82	..	2	2	257
3	..	1	..	..	1	..	..	2	1	6	..	9	..	..	..	121
3	3	33	..	20	1	..	..	1	7	30	1	106	..	..	2	2,131
..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	1
..	..	..	..	..	..	..	..	..	2	..	..	...	..	..	..	17
1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3
2	4	1	1	..	16	..	..	1	2	4	..	137	3	1	1	953
59	..	..	..	..	..	..	..	..	..	1	..	3	..	..	..	65
..	6	..	..	..	..	..	..	..	2	..	..	1	..	..	..	10
..	..	27	..	3	..	..	..	..	..	..	..	...	..	..	..	33
..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	....
..	..	1	..	9	..	..	..	..	..	..	..	...	..	..	..	11
..	..	1	..	..	41	..	..	..	..	1	..	20	..	..	..	92
..	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	4
..	..	..	..	..	..	..	1	..	..	..	..	...	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	....
..	2	..	..	1	..	..	..	..	49	..	..	...	..	..	..	57
1	..	..	..	..	..	..	..	..	..	18	..	...	..	..	1	65
..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	....
11	1	10	1	8	30	2	4	4	11	12	1	2,103	5	3	25	3,304
..	..	..	..	..	..	..	..	..	..	..	..	9	165	..	..	184
..	..	..	..	..	1	..	..	..	..	..	..	3	..	5	..	13
..	..	..	..	..	..	..	..	2	..	..	..	3	1	..	11	19
84	17	80	3	44	102	2	6	10	79	77	2	2,508	175	11	42	7,565

Years.	Nativity of Persons whose Marriages were Registered in this Bureau during the past Ten Years.								Number of Marriages Registered each Month for the past Ten Years.												Totals.
	foreign.		native.		not stated.		born at sea.		months.												
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1866....................	3,659	3,428	1,351	1,588	782	776	..	..	256	228	229	274	461	523	601	554	604	767	683	612	5,792
1867....................	5,051	4,654	1,890	2,280	203	210	..	..	557	493	517	636	766	727	580	530	645	674	578	441	7,144
1868....................	4,818	4,398	1,963	2,387	145	141	..	..	569	547	469	615	744	635	524	584	584	623	658	374	6,926
1869...	5,860	5,255	2,605	3,202	230	238	..	..	687	621	565	883	832	709	656	608	998	620	822	694	8,695
1870....................	5,471	4,848	2,270	2,900	242	236	2	1	717	580	734	500	702	804	590	538	628	662	1,049	481	7,985
1871....................	5,601	4,924	2,610	2,271	433	443	2	8	636	640	523	654	830	749	583	651	901	894	808	777	8,646
1872....................	6,015	5,289	2,785	3,502	205	213	3	4	723	713	515	864	833	767	699	639	779	885	863	728	9,008
1873....................	5,982	5,132	2,688	3,530	194	203	7	6	778	687	645	776	852	853	649	606	781	825	733	686	8,871
1874....................	5,270	4,443	2,875	3,687	249	263	3	4	639	622	611	765	806	781	655	538	723	830	737	690	8,397
1875.........	4,880	4,073	2,508	3,304	175	184	2	4	583	579	489	724	736	677	649	518	620	710	732	548	7,565
Totals.............	52,607	46,444	23,545	29,651	2,858	2,907	19	27	6,145	5,710	5,297	6,691	7,562	7,225	6,186	5,766	7,263	7,490	7,663	6,031	79,029

STILL-BIRTHS.

There were 2,274 still-births registered in this Bureau during the year 1875, which are 3 less than the number reported during the year 1874. 1,236 were males, and 988 females, and the sex of 50 was not stated; 524 fathers were natives of the United States, 1,598 were foreign born, and the nativity of 152 was unknown or not stated. The number of mothers born in the United States was 612, those that were foreign born were 1,535, and 127 had no nativity stated. The fœtal age of 3 was reported to be two months, 21 three months, 63 four months, 91 five months, 249 six months, 278 seven months, 326 eight months, 1,152 nine months, 12 ten months, and the period of utero-gestation of 79 was unknown or not stated.

RETURN OF STILL-BIRTHS.

Table showing the Nativity of Parents and the Period of Utero-Gestation, for the Twelve Months ending December 31, 1874.

Months.	Totals.	Sex.			Nativity.						Period of Utero-Gestation.										
					Father.			Mother.													
		Male.	Female.	Not stated.	Native.	Foreign.	Not stated.	Native.	Foreign.	Not stated.	First Month.	Second Month.	Third Month.	Fourth Month.	Fifth Month.	Sixth Month.	Seventh Month.	Eighth Month.	Ninth Month.	Tenth Month.	Not stated.
January	180	109	70	1	42	129	9	47	126	7	..	..	1	4	6	22	24	24	91	2	6
February	183	99	81	3	47	126	10	49	128	6	..	1	4	10	7	13	31	25	87	1	4
March	217	124	91	2	59	149	9	45	169	3	..	..	2	7	8	17	30	27	116	1	9
Totals First Quarter	580	332	242	6	148	404	28	141	423	16	..	1	7	21	21	52	85	76	294	4	19
April	198	127	69	2	47	143	8	44	145	9	..	1	2	2	8	17	35	33	99	..	1
May	190	106	80	4	36	139	15	36	144	10	..	..	3	1	11	20	35	22	91	..	7
June	201	101	94	6	42	141	18	57	129	15	..	..	..	7	9	19	34	29	92	..	11
Totals Second Quarter	589	334	243	12	125	423	41	137	418	34	..	1	5	10	28	56	104	84	282	..	19
July	181	103	78	..	40	135	6	59	117	5	..	..	1	8	10	13	26	26	95	1	1
August	222	113	106	3	35	170	17	58	149	15	..	..	1	2	13	27	35	32	103	..	9
September	180	95	80	5	29	130	21	44	120	16	..	1	3	5	9	12	15	21	109	..	5
Totals Third Quarter	583	311	264	8	104	435	44	161	386	36	..	1	5	15	32	52	76	79	307	1	15
October	162	92	70	..	39	114	9	51	101	10	..	..	..	3	13	27	16	18	81	..	4
November	186	97	88	1	57	120	9	68	108	10	..	..	1	3	11	14	25	25	103	1	3
December	177	105	69	3	40	128	9	50	120	7	..	..	..	4	5	15	34	20	95	..	4
Totals Fourth Quarter	525	294	227	4	136	362	27	169	329	27	..	..	1	10	29	56	75	63	279	1	11
Totals for the Year	2,277	1,271	976	30	513	1,624	140	608	1,556	113	..	3	18	56	110	216	340	302	1,162	6	64

RETURN OF STILL-BIRTHS.

Table showing the Nativity of Parents and the Period of Utero-Gestation, for the Twelve Months ending December 31, 1875.

Months.	Totals.	Sex.			Nativity.						Period of Utero-Gestation.										
					Father.			Mother.													
		Male.	Female.	Not stated.	Native.	Foreign.	Not stated.	Native.	Foreign.	Not stated.	First Month.	Second Month.	Third Month.	Fourth Month.	Fifth Month.	Sixth Month.	Seventh Month.	Eighth Month.	Ninth Month.	Tenth Month.	Not stated.
January	191	110	77	4	63	121	7	57	128	6	..	..	1	5	5	18	17	33	109	..	3
February	190	105	77	8	46	131	13	58	121	11	..	1	5	5	6	11	24	19	110	..	9
March	199	81	117	1	38	146	15	52	142	5	..	1	1	3	7	22	30	31	97	3	4
Totals First Quarter	580	296	271	13	147	398	35	167	391	22	..	2	7	13	18	51	71	83	316	3	16
April	202	115	83	4	48	143	11	55	136	11	..	..	..	7	6	15	29	33	105	2	5
May	207	130	76	1	40	151	16	46	150	11	..	..	2	6	6	30	26	20	111	1	5
June	196	101	94	1	31	152	13	48	138	10	..	..	2	8	8	20	30	29	96	2	1
Totals Second Quarter	605	346	253	6	119	446	40	149	424	32	..	..	4	21	20	65	85	82	312	5	11
July	174	102	70	2	40	122	12	51	114	9	..	..	2	7	9	27	12	21	91	2	3
August	172	94	64	14	41	119	12	46	114	12	..	..	1	4	4	18	22	26	76	..	21
September	165	95	67	3	31	126	8	39	118	8	..	..	2	4	11	19	22	21	73	2	11
Totals Third Quarter	511	291	201	19	112	367	32	136	346	29	..	..	5	15	24	64	56	68	240	4	35
October	184	100	82	2	36	132	16	58	109	17	..	..	2	4	10	22	22	34	82	..	8
November	189	102	83	4	45	130	14	42	135	12	..	..	..	8	5	23	22	32	92	..	7
December	205	101	98	6	65	125	15	60	130	15	..	1	3	2	14	24	22	27	110	..	2
Totals Fourth Quarter	578	303	263	12	146	387	45	160	374	44	..	1	5	14	29	69	66	93	284	..	17
Totals for the Year	2,274	1,236	988	50	524	1,598	152	612	1,535	127	..	3	21	63	91	249	278	326	1,152	12	79

NATIVITY OF PARENTS OF STILL-BORN INFANTS

Nativity of Mother.	Totals.	Nativity of Father.								
		Austria.	Belgium.	British America.	Denmark.	England.	France.	Germany.	Holland.	Ireland.
Austria	45	38	..	..	..	..	..	4	..	...
Belgium	....	..	..	..	..	..	..	...	..	...
British America	10	..	..	4	..	1	..	...	..	1
Denmark	2	..	..	..	2	..	..	...	..	...
England	52	..	..	..	..	37	..	4	..	5
France	19	..	..	..	..	..	11	4	..	2
Germany	626	2	..	..	3	3	6	544	2	19
Holland	2	..	..	..	..	..	..	...	2	...
Ireland	681	..	..	1	1	14	14	41	2	546
Italy	23	..	..	..	..	..	..	...	..	...
Norway	1	..	..	..	..	..	..	1	..	...
Poland	30	..	..	..	..	..	..	1	..	...
Russia	9	..	..	..	..	..	..	...	..	...
Scotland	12	..	..	..	..	2	..	...	1	...
Sweden	6	..	..	..	..	..	..	...	..	...
Switzerland	6	..	..	..	..	..	1	1	..	...
Spain	....	..	..	..	..	..	..	...	..	...
United States	601	1	..	2	1	14	3	59	1	61
Unknown, or not stated	139	..	..	..	..	..	..	...	..	...
Wales	2	..		..	..	..	..	...	..	1
West Indies	6	..	..	..	..	..	..	...	..	...
Asia	....	..	..	..	..	..	..	...	..	...
Africa	....	..	..	..	..	..	..	...	..	...
Europe	2	..	..	..	..	..	..	...	..	...
South America	3	..	..	..	..	..	..	...	..	...
Totals	2,277	41	..	7	7	71	35	659	8	635

IN NEW YORK CITY DURING THE YEAR 1874.

Nativity of Father.

Italy.	Norway.	Poland.	Russia.	Scotland.	Sweden.	Switzerland.	Spain.	United States.	Unknown, or not stated.	Wales.	West Indies.	Asia.	Africa.	Europe.	South America.
..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	4	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	6	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	2	...	..	..	..	..	..	..
3	1	2	5	..	1	2	..	24	7	..	1	..	..	..	1
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
3	..	..	..	2	1	..	..	47	8	..	..	1	..	..	..
22	..	..	..	..	..	..	..	1	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	29	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	..	8	..	..	..	..	1	...	..	..	..	..	..	..
..	..	..	..	7	..	..	..	2	...	..	..	..	..	..	..
..	..	..	..	..	6	..	..	...	...	..	..	..	..	..	..
..	..	..	..	..	..	3	..	1	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
1	..	1	..	6	1	1	..	437	6	1	2	1	1	..	1
..	..	..	..	..	..	..	..	...	139	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	1	..	..	..	..	..
..	..	..	..	..	..	..	..	1	...	..	5	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	..	..
..	..	..	..	..	..	..	..	...	...	..	..	..	..	2	..
..	..	..	..	..	..	..	..	...	...	..	2	1	..	..	..
29	1	32	13	15	9	6	..	528	161	2	10	3	1	2	2

NATIVITY OF PARENTS OF CHILDREN STILL-BORN IN NEW YORK

DURING THE

NATIVITY OF MOTHER.	TOTALS.	NATIVITY OF FATHER.									
		Austria.	Belgium.	British America.	Europe.	Denmark.	England.	France.	Germany.	Holland.	Ireland.
Austria	48	41	..	..	..	..	..	..	4	..	....
Belgium	2	..	1	..	..	..	..	..	....	..	....
British America	12	..	..	4	2	..	..	..	1	..	2
Europe	4	..	..	..	4	..	..	..	....	..	....
Denmark	1	..	..	..	..	1	..	..	....	..	....
England	55	..	..	..	..	..	22	1	6	..	11
France	19	..	..	1	..	..	..	11	4	..	1
Germany	629	3	..	..	1	..	4	5	584	2	2
Holland	5	..	..	..	..	..	..	..	1	4	....
Ireland	664	..	..	3	1	3	17	5	13	..	557
Italy	18	..	..	..	..	..	..	..	....	..	....
Norway	1	..	..	..	..	..	..	..	....	..	....
Poland	22	..	..	..	..	..	..	..	1	..	....
Russia	16	..	..	..	..	..	2	..	1	..	....
Scotland	12	..	..	..	..	..	4	..	....	..	....
Sweden	5	..	..	..	..	..	..	..	...	..	....
Switzerland	3	..	..	..	..	..	..	..	1	..	1
Spain	1	..	..	..	..	..	..	..	....	..	....
United States	614	..	..	8	2	..	25	2	74	..	57
Unknown, or not stated	135	..	..	..	..	..	..	..	1	..	....
Wales	2	..	..	..	..	..	..	..	1	..	....
West Indies	3	..	..	..	..	..	..	..	....	..	....
Mexico	2	1	..	..	..	..	..	1	....	..	....
Sea, at	1	..	..	..	..	..	1	..	....	..	....
China	....	..	..	..	..	..	..	..	....	..	....
South America	....	..	..	..	..	..	..	..	....	..	....
Turkey	....	..	..	..	..	..	..	..	....	..	....
Totals	2,274	45	1	16	10	4	75	25	692	6	631

CITY AND REPORTED TO THE BUREAU OF VITAL STATISTICS,
YEAR 1875.

NATIVITY OF FATHER.

Italy.	Norway.	Poland.	Russia.	Scotland.	Sweden.	Switzerland.	Spain.	United States.	Unknown, or not stated.	Wales.	West Indies.	Mexico.	Sea, at.	China.	South America.	Turkey.
..	..	1	2	..	..	..	..	....	....	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	2	....	1	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	1	1	..	..	10	....	..	2	..	..	..	1	..
1	..	..	..	..	..	..	..	1	....	..	..	..	..	..	..	..
1	..	3	2	..	..	6	..	14	2	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
2	..	..	..	6	1	..	..	51	4	..	..	..	..	1	..	..
17	..	..	..	..	..	1	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	1	..	..	....	....	..	..	..	..	..	..	..
..	..	21	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	13	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	5	..	..	..	2	1	..	..	..	..	..	..	..
..	..	..	..	..	4	..	..	1	....	..	..	..	..	..	..	..
..	..	..	..	..	..	1	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	1	....	....	..	..	..	..	..	..	..
1	..	1	..	6	..	4	1	411	16	..	4	..	..	..	1	1
..	..	..	..	..	..	..	..	1	133	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	1	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	3	.	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	....	....	..	..	..	..	..	..	..
23	..	26	17	18	7	12	2	493	156	2	9	..	..	1	2	1

RETURN OF STILL-BIRTHS SHOWING THE NATIVITY OF PARENTS AND PERIOD OF UTERO-GESTATION,

For the past Six Years.

Years.	Totals.	Sex.			Nativity.						Period of Utero-Gestation—Months.										
					father.			mother.													
		Male.	Female.	Not stated.	Native.	Foreign.	Not stated.	Native.	Foreign.	Not stated.	1	2	3	4	5	6	7	8	9	10	Not stated.
1870.............	2,254	1,284	947	23	401	1,650	203	479	1,623	152	2	2	14	51	114	231	319	275	1,050	9	187
1871.............	2,276	1,286	977	13	448	1,677	151	540	1,643	93	2	7	29	62	106	244	305	315	1,138	5	63
1872.............	2,322	1,308	997	17	422	1,737	163	546	1,669	107	..	..	23	55	132	257	352	344	1,080	19	60
1873.............	2,312	1,317	964	31	447	1,705	158	566	1,632	116	2	8	24	65	141	254	308	352	1,099	4	55
1874.............	2,277	1,271	976	30	513	1,624	140	608	1,556	113	..	3	18	56	110	216	340	302	1,162	6	64
1875.............	2,274	1,236	988	50	524	1,598	152	612	1,535	127	..	3	21	63	91	249	278	326	1,152	12	79
Totals......	13,715	7,702	5,849	164	2,755	9,991	967	3,351	9,658	708	6	23	129	352	694	1,451	1,902	1,914	6,681	55	508

The number of permits issued during the year 1875, for the burial of the dead of this city, was 30,674, and for the interment of still-born infants, 2,274. Calvary Cemetery received 37.51 per cent. of the total; Lutheran, 14.43; City Cemetery (Potter's Field), 11.70; Greenwood, 8.64; Evergreen, 5.09; Cypress Hills, 4.14; Woodlawn, 2.32; Bay Side, 1.79; Union, 1.11; Randall's Island, 0.78; Machpelah, 0.78; New York Bay, 0.78; Holy Cross, 0.81; Branch, 0.05; Flushing, 0.04; Hudson County Catholic, 0.06; Hoboken, 0.10; Jersey City, 0.04; Marble, 0.19; Methodist, 0.43; New York Cemetery, 0.06; Newark, 0.04; St. Peter's, 0.53; St. Raymond's, 0.87; St. Michael's, 1.02; Staten Island, 0.15; Salem Fields, 0.16; Trinity, 0.45; Union Fields, 0.15; Washington, 0.72; West Farms, 0.49; Weehawken, 0.13; Ward's Island, 0.58; Yonkers, 0.17; other interments in New York City and vicinity, 0.96. The percentage of interments outside of New York City and vicinity, of the city dead, was 3.28.

Disposition of the Dead of New York City during the Year 1874, *as collected from the Records of Deaths of the Bureau of Vital Statistics of the Health Department.*

NAME OF CEMETERY.	LOCATION.	DENOMINATION.	Total Interments of Persons who Died in this City during the Year 1874.	Percentage to the Total Interments.
Bay Side..	Bay Side, Long Island, New York.	Jewish	498	1.73
Salem Fields	New Lots, Long Island, New York	"	34	.12
Union Fields	" " "	"	73	.25
Machpelah	" " "	"	218	.76
"	New Durham, New Jersey	Undenominational..		
City (pauper burial ground)	Hart's Island, New York	"	3,408	11.89
Cypress Hills	Between Ridgewood and Unionville, Long Island, New York	"	1,201	4.19
Evergreen	East New York, Long Island, New York	"	1,437	5.01
Flushing	Flushing, Long Island, New York.	"	12	.04
Greenwood	Brooklyn, Long Island, New York.	"	2,583	9.01
Hoboken *	Hoboken, New Jersey	"	27	.09
Lutheran	Middle Village, Long Island, New York	"	4,051	14.13
Marble	Seventeenth Ward, New York	"	55	.19
New York Bay	Near Greenville Station, New Jersey	"	243	.88
Trinity	Twelfth Ward, New York	"	134	.47

* Jews own 64 feet square.

Disposition of the Dead of New York City during the Year 1874, *etc.*—(Continued).

NAME OF CEMETERY.	LOCATION.	DENOMINATION.	Total Interments of Persons who Died in this City during the Year 1874.	Percentage to the Total Interments.
Woodlawn	Twenty-fourth Ward, New York	Undenominational	662	2.31
Washington	Gravesend, Long Island, New York	“	180	.63
Weehawken †	Weehawken, New Jersey	“	36	.12
Ward's Island (State Emigrant)	Ward's Island, Twelfth Ward, New York	“	27	.09
Yonkers	Near Yonkers, New York	“	43	.15
Jersey City ‡	Jersey City, New Jersey	....	24	.08
Newark ‡	Newark, New Jersey	....	43	.15
Staten Island ‡	Staten Island, New York	....	47	.16
West Farms ‡	West Farms, Twenty-fourth Ward, New York	....	115	.40
Calvary	Newtown, Long Island, New York.	Roman Catholic	10,842	37.82
Hudson County Catholic	Jersey City, New Jersey	“ “	21	.07
Holy Cross	Flatbush, Long Island, New York.	“ “	275	.96
St. Peter's	Jersey City, New Jersey	“ “	33	.12
St. Raymond's	Westchester, New York	“ “	265	.92
Methodist	Newtown, Long Island, New York	Methodist	49	.17
Union	Brooklyn, E. D., Long Island, New York	“ Protestant	350	1.21
St. Michael's	Astoria, Long Island, New York	Protestant Episcopal	299	1.04
St. Mark's	Seventeenth Ward, New York	“ “	6	.02
Other cemeteries and vaults in New York city and vicinity			326	1.14
Outside New York city and vicinity			1,051	3.67
Total permits issued for the burial of the dead of this city			28,668	....

† 3 acres allotted to Roman Catholics—consecrated ground.

‡ Cemeteries not specified.

Percentage of Burials in each Cemetery to Total Number of Interments during the Year 1875.

Branch	.05	Randall's Island	.78
Bay Side	1.79	St. Peter's	.16
Calvary	37.51	St. Raymond's	.87
City	11.70	St. Michael's	1.02
Cypress Hills	4.14	Staten Island	.15
Evergreen	5.09	Salem Fields	.16
Flushing	.04	Trinity	.48
Greenwood	8.26	Union	1.17
Hudson County, Catholic	.06	Union Fields	.15
Holy Cross	.81	Woodlawn	2.32
Hoboken	.10	Washington	.72
Jersey City	.04	West Farms	.49
Lutheran	14.43	Weehawken	.13
Machpelah	.78	Ward's Island	.58
Marble	.19	Yonkers	.17
Methodist	.43	City vaults not specified	.09
N. Y. Bay	.78	Vicinity of New York	.86
N. Y. Cemetery, New Jersey	.06	Outside	3.28
Newark	.04		

Interments of Still-Born Infants and of Persons who Died in New York City during the Year 1875.

CEMETERIES.	DENOMINATION.	STILL-BIRTHS.	DEATHS.	TOTAL.
Branch, Long Island	...	...	17	17
Bay Side, Long Island	Jewish	77	514	591
Calvary, Long Island	Roman Catholic	796	11,564	12,360
City, Hart's Island	Undenominational	423	3,433	3,856
Cypress Hills, Long Island	"	108	1,258	1,366
Evergreen, Long Island	"	142	1,536	1,678
Flushing, Long Island	"	...	14	14
Greenwood, Long Island	"	94	2,630	2,724
Hudson County Roman Catholic, New Jersey	Roman Catholic	...	20	20
Holy Cross, Long Island	"	7	261	268
Hoboken, New Jersey	"	...	33	33
Jersey City, New Jersey	...	...	15	15
Lutheran, Long Island	Undenominational	358	4,397	4,755
Machpelah, Long Island	Jewish	27	230	257
Machpelah, New Jersey	Undenominational			
Marble, New York	"	1	63	64
Methodist, Long Island	Methodist Episcopal	11	132	143
New York Bay, New Jersey	Undenominational	7	251	258
New York Cemetery, New Jersey	Dutch Reformed	...	20	20
Newark, New Jersey*	...	...	15	15
Randall's Island, New York	Undenominational	...	258	258
St. Peter's, New Jersey	Roman Catholic	2	51	53
St. Raymond's, Westchester County, New York	"	23	265	288
St. Michael's, Long Island	Episcopal	22	314	336
Staten Island*	...	1	49	50
Salem Fields, Long Island	Jewish	5	49	54
Trinity, New York	Undenominational	6	154	160
Union, Long Island	Methodist	31	355	386
Union Fields, Long Island	Jewish	2	49	51
Woodlawn, New York	Undenominational	18	747	765
Washington, Long Island	"	33	206	239
West Farms, New York*	...	18	146	164
Weehawken, New Jersey	Undenominational	1	42	43
Ward's Island, New York	"	18	175	193
Yonkers*	...	1	55	56
Other interments in vaults within city limits than those specified	...	3	28	31
Interments in cemeteries in vicinity of New York	...	14	272	286
Interments in cemeteries outside of vicinity of New York	...	25	1,056	1,081
Total interments	...	2,274	30,674 †	32,948

* All cemeteries. † Registered mortality.

1,423 applications for burial permits for bodies in transitu were made to this Bureau during the year 1875, which was 190 less than the number received during the year 1874. Bodies arriving in New York by way of Brooklyn, Long Island City, and Hudson County are required to have a permit for burial from the Health Officers of those places before they are permitted to cross the ferries to New York; this permit has the same effect as one issued by the Health Department of this city, and when obtained no further requirement is needed.

There were but 84 bodies removed from the city cemeteries during the year, and nearly all these were placed in receiving-vaults for temporary interment.

There were 1,418 transcripts of the records issued during the year 1875, of which 173 were of the records of birth, and 137 of marriage, and 1,108 of death. 1,326 searches of the records of births, marriages and deaths were made, and 818 imperfect certificates were returned for correction or information. The 114 certificates referred to the Coroner for investigation were of deaths which chapter 462, section 1, Laws of 1871, required their interposition.

Table showing the Number of Burial Permits issued for City Deaths, Still-Births, and Bodies in Transitu during the Years 1874 *and* 1875, *with the Number of Births, Marriages, Cases of Deaths referred to the Coroners, the Number of Imperfect Certificates, Transcripts and Searches of the Records of Births, Marriages, and Deaths for the same period.*

	1874.	1875.
Number of burial permits issued for deaths in this city	28,698 *	30,674 *
Number of burial permits issued for bodies in transitu	1,233	1,423
Number of burial permits issued for still-births in this city	2,277	2,274
Number of permits for disinterment and removal of bodies from city cemeteries.	148	84
Number of cases of deaths referred to coroners	136	114
Number of births	25,747	23,813
Number of marriages	8,397	7,565
Number of transcripts of birth record issued	145	173
Number of transcripts of marriage record issued	199	137
Number of transcripts of death record issued	1,072	1,108
Number of searches of births, marriages, and deaths, made	1,286	1,326
Imperfect certificates returned for correction or information	675	818

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* These figures refer to the number of death-certificates received from January 1 to December 31, each year, and known as the registered mortality. The actual number of deaths during the year 1874 was 28,727, and 1875 was 30,709.

The population of the City of New York, according to the New York State Census, taken during the month of June, 1875, was 1,041,886; the birth rate per 1,000 inhabitants would therefore be 22.85 ; the marriage rate, 7.26 ; and the still-birth rate, 2.18, or 1 birth to every 43.75 inhabitants ; 1 marriage to every 137.72, and 1 still-birth to every 414.19, or 1 child born dead to every 10.47 children registered born alive.

But, on account of our defective registration laws, and the consequent incompleteness of the returns of births and marriages, no reliance should be placed in these branches of our statistics as representing, even, an approximation of the total number which occurred in this city during the years mentioned, they are consequently of little practical value for statistical purposes. The accompanying table will show the six nationalities which contributed the largest share of the births, marriages, and still-births to the vital statistics of this city during the years 1874 and 1875 :

NATIVITY.

YEARS.	FRANCE.						AUSTRIA.						ENGLAND.					
	Births.		Marriages.		Still-Births.		Births.		Marriages.		Still-Births.		Births.		Marriages.		Still-Births.	
	Father.	Mother.	Bride.	Groom.	Father.	Mother.	Father.	Mother.	Bride.	Groom.	Father.	Mother.	Father.	Mother.	Bride.	Groom.	Father.	Mother.
1874..........	386	304	126	151	11	19	587	597	171	198	38	45	900	847	298	392	71	52
1875..........	330	253	121	138	25	19	704	681	149	180	45	48	701	674	257	292	75	55
Totals....	716	557	247	289	36	38	1,291	1,278	320	378	83	93	1,601	1,521	555	684	146	107

YEARS.	IRELAND.						GERMANY.						UNITED STATES.					
	Births.		Marriages.		Still-Births.		Births.		Marriages.		Still-Births.		Births.		Marriages.		Still-Births.	
	Father.	Mother.	Bride.	Groom.	Father.	Mother.	Father.	Mother.	Bride.	Groom.	Father.	Mother.	Father.	Mother.	Bride.	Groom.	Father.	Mother.
1874..........	5,351	5,595	1,022	917	635	681	10,483	9,389	2,316	2,848	659	626	5,969	7,510	3,686	2,876	528	601
1875..........	5,017	5,093	953	910	631	664	9,585	8,427	2,131	2,670	692	629	5,628	7,514	3,304	2,508	493	614
Totals....	10,368	10,688	1,975	1,827	1,266	1,345	20,068	17,816	4,447	5,518	1,351	1,255	11,597	15,024	6,990	5,384	1,021	1,215

DEATHS OF PERSONS NINETY YEARS OLD AND UPWARD IN NEW YORK, DURING THE YEAR 1874.

Date of Death.	Name of Deceased.	Age.			Condition.	Occupation.	Nativity.	Time of Residence in City.	Color.	Cause of Death.
		Years.	Months.	Days.						
Jan. 2	Thomas Fitzgerald	90	..	..	Married		Ireland	26 years	White	Hemiplegia (old age).
" 8	Julia O'Brien	92	..	..	Widowed		"	60 "	"	Pneumonia.
" 20	John Donohue	90	6	..	"		"	10 "	"	Acute bronchitis.
" 28	James Reilly	106	..	..			"	32 "	"	Senile asthenia.
Feb. 1	John Dorsett	94	7	..			New York	70 "	"	Senile asthenia.
" 3	James H. Brown	90	8	..	Widowed		"		"	Cancer of lip.
" 4	William Lewis	106	2	10	Married	Merchant	France	26 years	"	Pneumonia (senile asthenia).
" 4	Catharine Eagan	96	..	..	Widowed		Ireland		"	Senile asthenia.
" 4	Ann Eagan	91	..	..	"		"	50 years	"	Phthisis (senile asthenia).
" 8	Patrick Murray	92	..	..	Married		"	25 "	"	Senile asthenia.
" 18	Elizabeth Mullen	92	..	..	"		"	23 "	"	Senile asthenia.
" 17	Bernard McCosker	99	1	17	Widowed		"	83 "	"	Chronic bronchitis (asthenia).
" 26	Catharine Cole	93	6	16	"		New Jersey	73 "	"	Broncho pneumonia (bed sores).
" 27	Elizabeth Rauch	94	..	..	"		Germany	33 "	"	Chronic diarrhœa (senile asthenia).
" 28	Hannah Hoag	93	2	..	"		New York	1 "	"	Senile asthenia.
Mar. 7	Margaret Mullany	90	..	..	"		Ireland	21 "	"	Bronchitis (asthenia).
" 12	Catharine Donelly	90	..	..	"		"	12 "	"	Senile asthenia.
" 13	Mary Patten	95	..	..	"		"		"	Senile asthenia.
" 14	Mary Raab	90	..	..	Single		Scotland	24 years	"	Pneumonia (senile asthenia).
" 17	Marg. Cloonan, or Cronan	103	..	..	Widowed		Ireland	25 "	"	Chronic bronchitis (senile asthenia),

“ 25	John Ligg	92	..	..	“	....	“	15 “	“	Chronic bronchitis (asthenia).
“ 30	Annie Murphy	90	..	..	“	....	“	6 “	“	Senile asthenia.
April 5	Ann Simington	90	..	..	“	....	“	9 “	“	Senile asthenia.
“ 6	Catharine Callahan	104	..	..	“	....	“	45 “	“	Pneumonia.
“ 7	Francis A. Guerin	92	..	..	“	....	France	60 “	“	Bruise of scrotum (hydrocele of scrotum, erysipelas and gangrene.
“ 7	Jane Ruthven	92	8	13	“	....	Scotland	....	“	Senile asthenia.
“ 7	Johanna McCarthy	90	..	..	“	....	Ireland	26 years	“	Bronchitis (senile asthenia).
“ 15	Elizabeth M. Kline	91	..	..	“	....	Germany	80 “	“	Hemiplegia (senile asthenia).
“ 19	Catharine Horan	94	..	..	“	....	Ireland	37 “	“	Apoplexy.
“ 22	Mary Baily	94	..	..	“	....	Maryland	14 “	Colored	Acute nephritis (senile asthenia).
“ 28	Sarah Murphy	98	1	..	“	....	Ireland	16 “	White	Senile asthenia.
May 1	Catharine Sullivan	91	2	15	“	....	“	20 “	“	Senile asthenia.
“ 8	William Wheelwright	90	10	..	“	Retired merchant	Scotland	73 “	“	Cystitis (uræmia).
“ 11	Sarah McFarland	93	..	..	“	....	Nova Scotia	14 “	“	Senile asthenia.
“ 11	Deborah Cronin	96	..	..	“	....	Ireland	22 “	“	Senile asthenia.
“ 20	Peter Nolan	90	..	..	Married	....	“	22 “	“	Chronic pneumonia (senile asthenia).
“ 20	Charles Nesbit	96	..	..	Widowed	Gardener	“	35 “	“	Senile asthenia.
“ 26	Peter Russmann	94	..	..	“	Carpenter	Germany	14 “	“	Senile asthenia.
“ 30	Mary O'Hara	97	..	..	“	....	Ireland	27 “	“	Senile asthenia.
June 20	Margaret Kelly	93	..	..	“	....	“	23 “	“	Senile asthenia.
“ 21	Mary Dunne	90	..	..	“	Housekeeper	“	20 “	“	Senile asthenia.
“ 22	Elizabeth C. Groesbeck	91	11	..	“	....	New York	39 “	“	Senile asthenia.
“ 26	Mary McCormick	97	..	..	....	....	Ireland	17 “	“	Bronchitis (senile asthenia).
July 2	Letty Downs	91	..	..	Widowed	....	New York	21 “	Colored	Bright's disease (apoplexy).
“ 4	Elizabeth Coleken	90	6	..	Married	....	Ireland	14 “	White	Senile asthenia.

DEATHS OF PERSONS NINETY YEARS OLD AND UPWARD IN NEW YORK, DURING THE YEAR 1874—(*Continued*).

Date of Death.	Name of Deceased.	Age.			Condition.	Occupation.	Nativity.	Time of Residence in City.	Color.	Cause of Death.
		Years.	Months.	Days.						
July 15	John Kennedy	93	..	..	....	....	Ireland	....	White	Senile asthenia.
" 16	Elizabeth D. Reed	95	..	..	Widowed	....	New York	18 years	"	Epilepsy (senile asthenia).
" 23	Susanna Alexander	90	6	..	"	....	England	44 "	"	Diarrhœa (senile asthenia).
" 25	Andrew Murphy	92	..	..	"	....	Ireland	49 "	"	Chronic diarrhœa (senile asthenia).
" 27	Francis McCahey	98	..	..	"	....	"	28 "	"	Old age.
" 30	Mary Smith	97	..	..	"	....	"	34 "	"	Senile asthenia.
" 30	Mary Bliss	108	..	..	"	....	Germany	9 "	"	Senile asthenia.
Aug. 1	Daniel Roney	90	..	..	"	Laborer	Ireland	30 "	"	Senile asthenia.
" 14	Ellen Cain	95	..	..	"	....	"	26 "	"	Senile asthenia.
" 17	Sarah McIlvaine	90	..	..	"	....	"	45 "	"	Senile asthenia.
" 21	James Allen	90	..	..	Married	....	Scotland	....	"	Senile asthenia.
" 24	Margaret McGrath	95	..	..	Widowed	....	Ireland	28 years	"	Apoplexy (senile asthenia).
" 31	John Decker	96	..	..	"	....	Pennsylvania	50 "	"	Valvular mitral and aortic disease of heart (syncope).
" 31	Ellen Lyons	113	..	..	"	....	Ireland	42 "	"	Senile asthenia.
Sept. 6	Molly Sheridan	100	..	..	"	....	"	46 "	"	Diarrhœa.
" 7	Elizabeth Moore	103	..	..	"	....	New York	40 "	Colored	Diarrhœa.
" 15	Ellen McGuire	90	..	..	"	Housekeeper	Ireland	30 "	White	Bronchitis.
" 16	Patrick Curer	96	6	..	....	....	"	15 "	"	Diarrhœa (senile asthenia).
" 23	Charlotte Johnson	92	..	..	Single	....	New York	....	Colored	Paralysis (senile asthenia).
" 25	Mary Kallor	91	..	..	....	....	"	....	White	Bronchitis (senile asthenia).

" 30....	Jeanette Nixon........	92	..	..	Widowed...	....	"	44 years...	"	Senile asthenia.
Oct. 8.....	Mary Flood...........	90	..	..	"	....	Ireland............	30 " ...	"	Old age.
" 5....	Mary Cortlandt.........	97	..	..	"	....	"	....	"	Bright's disease (valvular disease of heart).
" 8....	Alice Crawford.........	97	..	..	Married....	... .	"	20 years...	"	Phthisis pulmonalis.
" 13....	Mary Haring..........	90	..	16	Widowed...	....	New York.........	60 " ...	"	Fracture of femur (senile asthenia).
" 15....	Margaret Burns........	97	..	..	"	....	Ireland............	40 " ...	"	Chronic rheumatism (pericarditis).
" 17....	Jacob Kissam..........	113	..	..	"	Laborer...........	New York.........	....	Colored	Paralysis (senile asthenia).
" 21	Michael Wolff..........	90	..	..	"	....	Germany	16 years...	White..	Senile asthenia.
" 26....	Charles Sisco..........	95	..	..	"	....	New York.........	10 " ...	Colored	Senile asthenia.
" 29....	Ann Hasset.......	91	..	..	"	....	Ireland............	50 " ...	White..	Senile asthenia.
" 29....	Johanna Cummings.....	92	10	5	"	....	"	11 " ...	"	Apoplexy.
Nov. 1.....	Ruth Howell..........	94	..	..	"	Domestic..........	New York.........	....	Colored	Senile gangrene of foot.
" 6....	Elizabeth Yates........	91	..	..	Single......	....	New Hampshire....	54 years...	White..	Bronchitis (congestion of lungs).
" 8....	Edward McVey........	90	..	..	Married....	Laborer...........	Ireland............	30 " ...	"	Chronic Bright's disease (uræmia).
" 12....	Fatrick Fagan..........	95	..	..	....	....	"	65 " ...	"	Apoplexy.
" 12....	John Reitz.............	92	..	..	Widowed...	Laborer...........	Germany	37 " ...	"	Chronic bronchitis (cystitis).
" 16....	Mary Cline............	99	..	..	"	....	Ireland............	26 " ...	"	Chronic bronchitis.
" 21....	Catharine Arnett.......	95	..	..	Single......	. ...:	"	58 " ...	"	Paralysis.
" 23....	Elizabeth A. Gregg.....	90	..	..	....	....	"	6 " ...	"	Senile asthenia.
Dec. 2.....	William Delaney.......	96	..	..	Widowed...	....	"	....	"	Senile asthenia.
" 5....	Catharine Noonan......	90	..	..	"	Housekeeper.	"	10 years...	"	Bronchitis (senile asthenia).
" 4....	Bridget Milarkey.......	90	..	..	....	....	"	20 " ...	"	Senile asthenia.
" 7....	Alicia Farley..........	90	..	..	Widowed...	....	"	....	"	Phthisis pulmonalis.
" 12....	Mary Kendrick.........	95	..	..	"	....	"	25 years...	"	Bronchitis (senile asthenia).
" 28....	Mary Kessam..........	94	..	..	"	....	New York.........	9 " ...	Colored	Pneumonia.
" 28....	Elizabeth Sullivan......	90	..	..	"	....	Ireland...	45 " ...	White..	Congestion of lungs (senile asthenia).

DEATHS OF PERSONS NINETY YEARS OLD AND UPWARD IN NEW YORK, DURING THE YEAR 1875.

Date of Death.	Name of Deceased.	Age.			Condition.	Occupation.	Nativity.	Time of Residence in City.	Color.	Cause of Death.
		Years.	Months.	Days.						
Jan. 4	Patrick Reordan	90	..	..			Ireland		White	Bright's disease (œdema of lungs).
" 7	Levy Harris	90	..	..	Single		Germany	22 years	"	Jaundice (senile asthenia).
" 10	Mary Truman	90	5	29	"		New York	90 "	"	Senile asthenia.
" 14	Sarah McNally	90	..	..			Ireland	50 "	"	Bronchitis (senile asthenia).
" 20	Maria Karney	100	..	..	Widowed		Unknown		Colored	Senile asthenia.
" 25	Richard O'Rourke	96	..	..	Married		Ireland	30 years	White	Chronic bronchitis (senile asthenia).
" 30	Margaret Coffey	98	..	..	"		"	20 "	"	Senile asthenia.
" 31	Mary F. A. Keogh	97	..	..	Single	School teacher	"	50 "	"	Apoplexy (paralysis, senile asthenia).
" 31	Catharine Shea	93	..	..	Widowed		"	42 "	"	Phthisis pulmonalis (senile asthenia).
Feb. 1	Mary Purdy	94	..	..	"		New York	70 "	"	Pneumonia (old age).
" 13	John Galligan	95	..	..	"		Ireland	26 "	"	Senile asthenia.
" 15	Marion Gilmore	94	..	..	"		Scotland	23 "	"	Senile asthenia.
" 17	Mary Reynolds	98	..	..	"		Ireland	5 "	"	Senile asthenia.
" 18	Samuel Sink	97	1	18	Married		Germany	23 "	"	Chronic diarrhœa (senile asthenia).
" 19	Adelaide Vaillant	98	..	..	Widowed		France	68 "	"	Senile asthenia.
Mar. 3	Rachael La Franchese	100	..	..	"		New Jersey	50 "	"	Senile asthenia.
" 3	Rose Clark	91	..	..	"		Ireland	20 "	"	Senile asthenia.
" 6	Obadiah H. Bentley	93	..	..	"	Clergyman	Maryland	3 months	Colored	Pneumonia (œdema of lungs, asthenia).
" 7	Eva Pfeifer	98	..	..	"		Germany	30 years	White	Senile asthenia.
" 8	Louisa Goepfert	90	1	..			"	22 "	"	Pneumonia.

" 10	Heinrich Raab	94	2	24			"	3 "	"	Bright's disease (ascites).
" 12	Betsey Preston	101	11	..	Widowed	Servant	New York	52 "	Colored	Senile asthenia.
" 16	Patrick Cahill	96	..	..	"		Ireland	28 "	White	Senile asthenia (anasarca).
" 30	Elizabeth Day	93	8	26			Massachusetts	1⅓ "	"	Bright's disease (convulsions).
" 30	John Kilfoil	90	..	..	Widowed		Ireland	16 "	"	Chronic bronchitis (senile asthenia).
April 1	Elizabeth Newn	92	..	..	"		"	32 "	"	Diarrhœa (senile asthenia).
" 1	Matilda Gilmartin	90	..	..	"		"	28 "	"	Bronchitis (senile asthenia).
" 9	Francis Conroy	103	..	..	"		"	23 "	"	Bronchitis.
" 10	Juda Hirsch	About 100		..	"	Merchant	Prussia	10 "	"	Senile asthenia.
" 15	Margaret Piecy	95	..	24	"		Germany	88 "	"	Croupous pneumonia.
" 17	Catharine Hayes	90	..	..	"		Ireland	14 "	"	Phthisis.
" 22	Abigail Pierce	90	..	..			New York	1 "	"	Senile asthenia.
May 1	Hannah Zaddock	92	11	29	Widowed		Germany	11 "	"	Chronic bronchitis.
" 4	Ellen McEvoy	90	..	..	"		Ireland	19 "	"	Apoplexy.
" 5	Bridget Kelly	99	7	..	"		"		"	Senile asthenia.
" 5	Hermann Williams	90	..	..	"	Farmer	Germany	22 years	"	Fall from chair (fracture of thigh, œdema of lungs).
" 8	Abraham German	94	..	..			Switzerland	35 "	"	Phthisis (senile asthenia).
" 12	Margaret McLain	90	..	..			Ireland	35 "	"	Bronchitis (senile asthenia).
" 26	Ann Branigan	97	..	..	Widowed		"	1 month	"	Old age (senile asthenia).
June 2	Adam Blackledge	91	..	..	"		New York		"	Hypertrophy and valvular mitral disease of heart (œdema of lungs.)
" 10	John Shrady	92	..	13			"		"	Senile asthenia.
" 10	Sarah Strassburger	103	..	..	Widowed		Germany	24 years	"	Senile asthenia.
" 12	Jane Banta	97	2	15	"		New Jersey	10 "	"	Senile asthenia.
" 13	Arthur Geoghagan	90	..	..	Married		Ireland		"	Senile asthenia.
" 22	Catharine O'Brien	95	..	..	Widowed		"	34 years	"	Cancer of uterus (senile asthenia).

DEATHS OF PERSONS NINETY YEARS OLD AND UPWARD IN NEW YORK, DURING THE YEAR 1875—(*Continued*).

Date of Death.	Name of Deceased.	Age.			Condition.	Occupation.	Nativity.	Time of Residence in City.	Color.	Cause of Death.
		Years.	Months.	Days.						
June 28	Catharine Reed	92	7	..	Widowed	....	New York	1½ years	White	Inanition (senile asthenia)
" 27	Elizabeth Meyers	90	3	..	....	Domestic	Belleville, N. J	40 "	Colored	Diarrhœa (senile asthenia).
July 10	John Dunigan	95	..	..	....	....	Ireland	13 "	Wh'te	Inanition (senile asthenia).
" 20	Margaret Wallace	91	4	..	Widowed	....	New York	....	"	Hemiplegia (senile asthenia).
" 28	Honor Shanley	90	..	..	....	....	Ireland	20 years	"	Senile asthenia.
" 28	Jeremiah Ganny	94	..	..	Single	....	"	28 "	"	Paralysis (senile asthenia).
Aug. 4	Catharine Farley	100	10	..	Widowed	....	"	35 "	"	Senile asthenia.
" 6	Rose Finegan	95	..	..	"	....	"	23 "	"	Diarrhœa (senile asthenia).
" 6	Rachel Valentin	97	..	..	"	....	United States	40 "	"	Senile asthenia.
" 10	Jane Celeary	90	..	..	"	....	Ireland	25 "	"	Senile asthenia.
" 10	Charles Watson	91	11	11	"	....	Scotland	49 "	"	Acute diarrhœa.
" 17	Thomas Donohue	103	..	..	Married	Coal carrier	Ireland	30 "	"	Old age.
" 17	Eliza Griffing	91	8	18	....	....	United States	Life	"	Senile asthenia.
Sept. 1	Jeanette Livingston	91	..	..	....	....	New York	....	"	Bright's disease (senile asthenia).
" 1	Wolfgang Vogelbach	92	..	..	Married	....	Germany	20 years	"	Pneumonia (senile asthenia).
" 5	Bridget Armstrong	103	..	..	Widowed	....	Ireland	48 "	"	Senile asthenia.
" 16	Thomas Gordon	90	7	2	"	....	Scotland	....	"	Sanguineous apoplexy (inanition, paralysis).
" 20	Ellen Kelly	90	..	..	"	....	Ireland	40 "	"	Hypertrophy of heart (paralysis).
" 22	Francis Emmett	95	..	..	"	....	Malta	35 "	"	Chronic bronchitis (senile asthenia).
" 26	Margaret Healy	94	..	..	"	....	Ireland	40 "	"	Chronic gastritis.

“ 26	Ann Brown	90	4	..	“	...	“	18 “	“	Senile asthenia.
“ 29	Daniel Moese, Jr.	90	7	15	“	...	New York	Life	“	Pernicious tertian intermittent fever.
“ 30	Mary Shevlin	91	..	..	...	...	Ireland	...	“	Pyo-nephritis.
Oct. 17	Frank Kennedy	98	..	..	Widowed	...	“	5 years	“	Senile asthenia.
Nov. 5	Margaret McDevit	104	..	..	...	...	“	10 “	“	Senile asthenia.
“ 7	Fanny Nichol	91	..	..	Widowed	...	Scotland	30 “	“	Peritonitis.
“ 10	Catharine Mahony	107	..	..	“	...	Ireland	Life	“	Senile asthenia (paralysis of throat).
“ 11	Margaret McCann	97	..	..	“	...	“	25 years	“	Bright's disease (œdema of lungs).
“ 20	Sarah Conley	98	7	25	“	...	New York	40 “	“	Degeneration of heart (anasarca—senile asthenia).
“ 24	Catharine Ralph	96	11	..	“	...	Ireland	75 “	“	Senile asthenia.
“ 25	Catharine Donovan	100	..	..	“	...	“	13 “	“	Senile asthenia.
“ 25	John Fitzsimmons	96	3	8	“	...	“	40 “	“	Senile asthenia.
“ 29	Seligman L. Friend	92	4	16	“	...	Germany	6 “	“	Ulcer of stomach (asthenia).
Dec. 1	Catharine McGowan	103	..	..	“	...	Ireland	28 “	“	Chronic Diarrhœa (senile asthenia).
“ 4	Selda Batt	93	..	..	...	...	Germany	18 “	“	Senile asthenia.
“ 9	Margaret Donohoe	101	..	..	Widowed	...	Ireland	23 “	“	Senile asthenia.
“ 12	Sarah Gehorsam	91	..	..	“	...	Austria	3 “	“	Bed sores (senile asthenia).
“ 15	Julia McCarthy	100	..	..	“	...	Ireland	10 “	“	Senile asthenia.
“ 15	George Wagner	96	..	..	“	Mason	New Jersey	70 “	“	Senile asthenia.
“ 15	Rachel Purdy	90	5	..	“	...	“	30 “	“	Bronchitis (senile asthenia).
“ 18	Margaret Luby	103	11	1	“	...	Ireland	25 “	“	Senile asthenia.
“ 21	Mary Fetter	90	..	..	“	...	“	25 “	“	Senile asthenia.
“ 22	Bridget Dooley	93	..	..	“	...	“	50 “	“	Diarrhœa (senile asthenia).
“ 23	Margaret Bradley	95	..	..	“	...	“	27 “	“	Bronchitis (senile asthenia).
“ 31	Mary Powell Trigg	96	..	..	“	...	England	40 “	“	Senile asthenia.

The preceding list of deaths for 1874 and 1875 contains the names of 181 persons aged 90 years and upward, of which 25 deaths were of persons who attained 100 years, 20 of whom were females and 5 males; 21 were white and 4 were colored; 16 were born in Ireland, 4 in the United States (3 colored and 1 white), 3 in Germany, 1 in France, and 1 a colored person whose nativity was unknown.

Very respectfully,
Your obedient servant,

JOHN T. NAGLE, M.D.,
Deputy Register of Records.

REPORT OF THE ATTORNEY AND COUNSEL.

HEALTH DEPARTMENT OF THE CITY OF NEW YORK,
OFFICE OF THE ATTORNEY AND COUNSEL,
301 MOTT STREET,
NEW YORK, January 16, 1876.

To the Board of Health:

GENTLEMEN—In conformity with your instructions I have the honor to present a statement of the work performed by this office during the period embraced between April 30, 1874, and January 1, 1876.

During the year ending April 30, 1875, the number of actions instituted for the abatement of nuisances was		3,220
Classified as follows:		
For non-compliance with the orders of the Board	3,116	
For violation of Sanitary Ordinances	104	
		3,220
Of this number there were—		
Pending on the 30th of April, 1875	473	
Discontinued for all causes, the nuisance in each instance having been first abated	1,885	
Tried and judgment rendered for the Department	755	
Judgments of dismissal or non-suit	105	
Actions abated by death of defendant	2	
		3,220
Amount of costs and penalties realized in settlement of actions and paid to the City Chamberlain		$8,533 28
During the period of eight months ending December 31, 1875, the number of actions commenced for the abatement of nuisances was		1,998
Classified as follows:		
For non-compliance with orders of the Board	1,960	
For violations of Sanitary Ordinances	38	
		1,998

Discontinued for all causes, the nuisance in each instance having been first abated	1,193	
Tried and judgment rendered for the Department	488	
Judgments of dismissal or non-suit	125	
Pending on the 1st day of January, 1876	192	
		1,998
Amount of costs and penalties realized in settlement of actions and paid to the City Chamberlain		$6,528 36
For the entire period covered by this report the number of actions commenced, as stated in the foregoing table, was		5,218

Classified as follows:

For non-compliance with orders of the Board	5,076	
For violations of the Sanitary Code	142	
		5,218

Of this number there were discontinued—

For all causes, after abatement of nuisance	3,078	
Tried and judgments obtained for the Health Department	1,243	
Judgments of dismissal or non-suit	230	
Number of actions brought against the Health Department	3	
		4,554
Amount of costs and penalties realized in settlement of actions and paid into City Treasury		$15,061 64

In a majority of instances where judgments of dismissal or non-suit have been given there was either an entire failure to serve process, a defect in the service of the original notice, or a mistake in regard to the ownership of the premises involved in the proceeding.

In nearly all of these proceedings in behalf of the Board the defendants have called in person or by attorney at this office, and entered into proper stipulations to abate the nuisance complained of, or rendered necessary explanations. As far as practicable a liberal method of adjustment of these actions has been applied, the chief aim having been to secure the prompt removal of the cause of complaint without undue hardship to the responsible party. As a result of this policy the owners of property respect the authority and will of the Board, as expressed in the orders entered from week to week, for the abatement of the various nuisances constantly recurring in this city. Since the last annual report of your Attorney, the Governor has approved two bills passed by the Legislature of 1874, to increase the efficiency and usefulness of this Department, viz., chapters 635 and 636 of the Laws of 1874. The last named act has proved of great value, by removing doubts that existed as to the powers of the Board, and by simplifying the trial of actions brought in its behalf. Under chapter 335 of the Laws of 1873, it was provided that all such actions should be instituted in the name of the Mayor, Aldermen, and Commonalty of the city. This cumbrous and anomalous provision was the fruitful cause of frivolous and technical defences to actions commenced for penalties. The authority, duties, and power of the Department now seem clearly defined, and have been settled by repeated adjudications. In addition to the volume of prosecutions embodied in the tabulated statement of this report, a large number of arrests have been made by the police for violation of sanitary ordinances, especially those which prohibit the accumulation of stable refuse within the city limits, and the sale of unwholesome, watered or adulterated milk. The result achieved has been very satisfactory, and for the first time since the organization of a Board of Health in this city has the vast accumulation of the offensive products of the stables within its limits been entirely removed beyond the city lines. Section 45 of the Sanitary Code is as follows:

SEC. 45. "That no person shall have at any place where milk, butter or cheese is kept for sale, nor at any place offer or have for sale, nor shall any person bring or send to said city, any unwholesome, watered or adulterated milk, or milk known as swill-milk, or milk from cows or other animals that for the most part lived in stables, or that feed on swill, garbage or other like substances; nor any butter or cheese made from any such milk, nor any unwholesome butter or cheese."

The vigorous enforcement of its salutary provisions has already caused a marked reduction of the evils attending the sale of watered and adulterated milk, and if systematically continued must have an appreciable and favorable effect upon the death-rate of that class of our population peculiarly dependent upon a wholesome milk diet. Forty-three dealers in milk have been arrested upon complaints establishing a probable violation of the section cited. Of this number thirty-seven have been tried and convicted. The courts have in all cases of conviction imposed a fine varying from $50 to $200, and such fines amounted to the sum of $2,400. In two cases only have the complaints been withdrawn or dismissed by reason of insufficient evidence or extenuating circumstances. The remaining four cases have been transferred, upon the application of the accused, to the Court of General Sessions. A number of indictments have been found by the Grand Jury, and with the consent and kind coöperation of the District Attorney, will be brought to trial as soon as the volume of business in his office will permit. In a majority of the cases already disposed of, the defendants have been represented by able counsel, and every obstacle and embarrassment that legal ingenuity could devise have been interposed to prevent conviction and proper punishment. In one case only has a writ of error been granted, and the proceedings in that case will, therefore, be reviewed at the General Term of the Supreme Court. The presiding judicial officers of the various courts, in which the Health Department has had occasion to appear by attorney or counsel, have uniformly extended generous consideration to the sanitary reforms sought to be promoted, and have thereby contributed an important influence to secure the general efficiency and the value of the efforts of your Board. Under the existing laws, with the coöperation of an able and upright judiciary, and an intelligent and independent sanitary administration, there is every reason to hope for the continued recognition and protection of those interests upon which the public health so largely depend.

Very respectfully,

W. P. PRENTICE,
Attorney and Counsel.

REPORT ON CROTON WATER.

New York, January 1, 1876.

W. De F. Day, M. D.,
Sanitary Superintendent:

Sir—I have the honor to communicate the following results of examinations of the Croton water since January 1, 1874.

The first column gives the appearance of the water in the mass when inspected in a tall, colorless, glass vessel. The results given in the second column were obtained by evaporating a measured quantity of the water to dryness, igniting, moistening with carbonic acid water, and drying at about 260° Fahr.

The third columns give the loss on ignition and represent the organic matter in solution, together with the acids of such salts (except carbonates) as are decomposed by the temperature of ignition. The fourth columns are the sum of the second and third, and show the results obtained by evaporating a measured quantity of the water at 260° Fahr.

In the fifth columns are given approximately the amounts of lime salts present, the amounts having been determined by the use of a standard solution of soap. In the last columns are given the results obtained by treating the water with a standard solution of potash permanganate.

TABLE I.

(*Results given in Grains to the U. S. Gallon of* 231 *cubic inches.*)

For Week Ending—		Appearance.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1874.							
January	3......	Clear, light green....................................	3.384	0.816	4.200	1.650	0.055
"	10......	Turbid, light green..............................	3.266	0.816	4.082	1.650	0.076
"	17......	Turbid, light green..............................	3.266	1.166	4.432	1.353	0.069
"	24......	Slightly turbid, light green..........................	2.916	0.816	3.732	1.650	0.062
"	31......	Slightly turbid, light green.........................	3.499	0.233	3.732	1.501	0.055
Feb.	7......	Slightly turbid, light green.........................	3.499	0.816	4.315	1.650	0.069
"	14......	Faint turbidity, light green.........................	3.965	0.816	4.781	1.650	0.041
"	21......	Turbid, light green..............................	3.849	0.816	4.665	1.650	0.048
"	28......	Turbid, light green.............................	3.033	1.049	4.082	1.650	0.048
March	7......	Turbid, light green..............................	2.799	0.933	3.732	1.650	0.066
"	14......	Slightly turbid, yellowish.........................	3.033	1.049	4.082	1.501	0.055
"	21......	Clear, yellowish cast...........	3.150	0.816	3.966	1.650	0.084
"	28......	Faint turbidity, light green.........................	2.683	0.816	3.499	1.650	0.084
April	4......	Slightly turbid, light green..............	3.266	0.816	4.082	1.650	0.055
"	11......	Clear, light green...............................	3.150	0.816	3.966	2.183	0.076
"	18......	Turbid, greenish...	3.150	0.816	3.966	1.866	0.084
"	25......	Turbid, light green..............................	2.800	0.816	3.616	2.183	0.068
May	2......	Turbid, greenish................................	3.383	0.816	4.199	1.866	0.068
"	9......	Turbid, light green..............................	3.266	1.399	4.665	1.691	0.076
"	16......	Turbid, greenish................................	2.916	0.933	3.849	1.557	0.084
"	23......	Slightly turbid, light green.........................	2.566	1.166	3.732	1.557	0.076
"	30......	Turbid, light green..............................	3.265	1.050	4.315	1.866	0.068
June	6......	Turbid, light brown..............................	3.383	1.166	4.549	1.866	0.105
"	13......	Clear, light green...............................	3.616	0.816	4.432	1.866	0.102
July	4......	Slightly turbid, yellowish..............	4.315	1.283	5.598	2.339	0.091
"	11......	Faint turbidity, light green.........................	3.615	1.283	4.898	2.339	0.100
"	18......	Slightly turbid, brownish......	3.732	1.166	4.898	2.181	0.152
"	25......	Turbid, brownish green............................	3.499	0.933	4.432	2.181	0.200
August	1......	Faint turbidity, greenish...........................	3.500	1.049	4.549	2.191	0.170
"	8......	Turbid, light green..........................	3.849	1.049	4.898	2.339	0.137
"	15......	Turbid, brownish green............................	3.849	1.166	5.015	2.339	0.170
"	22......	Slightly turbid, brownish green.....................	3.849	0.933	4.782	2.181	0.204
"	29......	Slightly turbid, brownish green.....................	3.615	1.283	4.898	2.181	0.177
Sept.	5......	Turbid, greenish......................	3.849	1.166	5.015	2.356	0.157

TABLE I.—(*Continued*).

(*Results given in Grains to the U. S. Gallon of* 231 *cubic inches.*)

For Week Ending—	Appearance.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1874.						
Sept. 12	Turbid, greenish	3.733	1.049	4.782	2.233	0.115
" 19	Turbid, light green	2.916	1.283	4.199	2.109	0.115
" 26	Turbid, light green	3.266	0.933	4.199	1.983	0.108
October 3	Slightly turbid, green	2.916	0.700	3.616	1.983	0.111
" 10	Turbid, brownish green	3.149	1.562	4.711	1.983	0.128
" 17	Slightly turbid, yellowish green	2.986	1.143	4.129	2.109	0.115
" 24	Turbid, yellow	3.616	1.166	4.782	1.983	0.113
" 31	Clear, light green	3.150	1.749	4.899	2.109	0.117
Nov. 7	Turbid, brownish	3.849	1.633	5.482	2.109	0.108
" 14	Turbid, greenish	3.732	0.933	4.665	2.233	0.084
" 21	Slightly turbid, yellowish	3.732	1.050	4.782	2.233	0.070
" 28	Turbid, light green	3.266	1.399	4.665	2.109	0.075
Dec. 5	Slightly turbid, light green	3.849	0.816	4.665	2.109	0.070
" 12	Slightly turbid, light green	3.499	1.166	4.665	2.109	0.084
" 19	Faint turbidity, light green	3.616	1.049	4.665	2.109	0.108
" 26	Clear, light green	3.732	0.933	4.665	1.983	0.075
1875.						
January 2	Slightly turbid, light green	3.500	1.049	4.549	2.109	0.046
" 9	Faint turbidity, light green	3.616	0.816	4.432	2.041	0.070
" 16	Faint turbidity, yellowish	3.499	1.283	4.782	2.041	0.070
" 23	Clear, light green	3.616	0.816	4.432	2.041	0.092
" 30	Clear, light green	3.616	0.933	4.549	2.041	0.084
Feb. 6	Turbid, light green	2.916	0.700	3.616	1.880	0.046
" 13	Turbid, yellowish green	2.682	1.050	3.732	1.254	0.108
" 20	Turbid, yellowish	2.333	0.816	3.149	1.108	0.128
" 27	Slightly turbid, light green	1.983	0.933	2.916	1.254	0.122
March 6	Turbid, yellowish	1.866	0.933	2.799	1.108	0.206
" 13	Clear, light green	2.100	1.166	3.266	1.254	0.187
" 20	Turbid, greenish yellow	2.099	1.050	3.149	1.254	0.093
" 27	Turbid, light green	1.866	1.050	2.916	1.254	0.093
April 3	Very turbid, greenish yellow	2.216	1.166	3.382	1.254	0.074
" 10	Slightly turbid, greenish	2.333	0.583	2.916	1.254	0.126
" 17	Faint turbidity, light green	2.100	1.049	3.149	1.411	0.107
" 24	Slightly turbid, light green	2.450	1.049	3.499	1.411	0.126
May 1	Slightly turbid, light green	2.450	1.049	3.499	1.568	0.126

TABLE I.—(*Continued*).

(*Results given in Grains to the U. S. Gallon of* 231 *cubic inches.*)

For Week Ending—		Appearance.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1875.							
May	8	Slightly turbid, yellowish green	3.149	0.583	3.732	1.568	0.122
"	15	Clear, yellowish green	2.799	0.933	3.732	1.724	0.116
"	22	Slightly turbid, light green	3.033	1.049	4.082	1.880	0.117
"	29	Faint turbidity, yellowish green	3.150	1.049	4.199	2.041	0.125
June	5	Turbid, yellowish green	4.082	1.050	5.132	2.191	0.125
"	12	Turbid, light green	3.849	1.050	4.899	2.191	0.089
"	19	Faint turbidity, yellowish green	3.966	1.166	3.132	2.191	0.098
"	26	Clear, light green	3.965	1.400	5.365	2.191	0.107
July	3	Slightly turbid, faint yellowish green	3.732	1.400	5.132	2.350	0.117
"	10	Turbid, light green, cast of yellow	3.615	1.400	5.015	2.350	0.152
"	17	Turbid, light green	3.382	1.633	5.015	2.191	0.117
"	24	Turbid, yellowish green	3.359	1.143	4.502	2.041	0.125
"	31	Turbid, light green	3.499	1.166	4.665	2.041	0.117
August	7	Turbid, yellowish green	3.266	1.166	4.432	1.884	0.134
"	14	Turbid, yellowish green	3.453	1.166	4.619	2.006	0.152
"	21	Turbid, yellowish green	3.084	1.306	4.390	1.884	0.179
"	28	Turbid, greenish yellow	2.869	1.306	4.175	1.884	0.223
Sept.	4	Turbid, yellowish green	3.511	1.038	4.549	2.041	0.179
"	11	Turbid, green, cast of yellow	4.012	1.353	5.365	2.191	0.170
"	18	Slightly turbid, yellowish green	3.942	1.236	5.178	2.191	0.188
"	25	Turbid, greenish	4.269	1.073	5.342	2.191	0.117
October	2	Slightly turbid, greenish	4.339	1.073	5.412	2.191	0.117
"	9	Slightly turbid, light green	4.152	1.143	5.295	2.191	0.129
"	16	Very slightly turbid, cast of yellow	4.455	0.910	5.365	2.191	0.098
"	23	....	4.292	1.026	5.318	2.671	0.089
"	30	Faint turbidity, light green	4.036	1.003	5.039	2.125	0.129
Nov.	6	Turbid, greenish yellow	4.339	1.259	5.598	2.428	0.117
"	13	Turbid, greenish yellow	4.059	1.026	5.085	2.531	0.107
"	20	Turbid, yellowish	4.082	0.933	5.015	2.326	0.134
"	27	Quite turbid, yellowish green	3.779	1.003	4.782	2.403	0.153
Dec.	4	Very turbid, greenish	3.615	0.980	4.595	2.378	0.172
"	11	Turbid, brownish green	3.266	0.933	4.199	1.880	0.129
"	18	Quite turbid, yellowish green	2.893	1.446	4.339	1.849	0.138
"	25	Turbid, yellowish green	2.986	0.746	3.732	2.038	0.105

TABLE II.

(*Results given in Parts in* 100,000.)

For Week Ending—	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1874.					
January 3	5.8	1.4	7.2	2.834	0.095
" 10	5 6	1.4	7.0	2.834	0.135
" 17	5.6	2.0	7.6	2.320	0.119
" 24	5.0	1.4	6.4	2.834	0.107
" 31	6.0	0.4	6.4	2.576	0.095
Feb. 7	6.0	1.4	7.4	2.834	0.119
" 14	6.8	1.4	8.2	2.834	0.071
" 21	6.6	1.4	8.0	2.834	0 083
" 28	5.2	1.8	7.0	2.834	0.083
March 7	4.8	1.6	6.4	2.834	0.113
" 14	5.2	1.8	7.0	2.576	0.095
" 21	5.4	1.4	6.8	2.834	0.144
" 28	4.6	1.4	6.0	2.834	0.144
April 4	5.6	1.4	7.0	2.834	0.095
" 11	5.8	1.0	6.8	3.743	0.131
" 18	5.4	1.4	6.8	3.208	0.144
" 25	4.8	1.4	6.2	3.743	0.117
May 2	5.80	1.40	7.20	3.208	0.117
" 9	5.60	2.40	8.00	2.931	0.131
" 16	5.00	1.60	6.60	2.673	0.145
" 23	4.40	2.00	6.40	2.673	0.131
" 30	5.60	1.80	7.40	3.208	0.117
June 6	5.80	2.00	7.80	3.208	0.181
" 13	6.20	1.40	7.60	3.208	0.175
July 4	7.40	2.20	9.60	4.010	0.157
" 11	6.20	2.20	8.40	4.010	0.168
" 18	6.40	2.00	8.40	3.743	0.262
" 25	6.00	1.60	7.60	3.743	0.336
August 1	6.00	1.80	7.80	3.743	0.292
" 8	6.60	1.80	8.40	4.010	0.234
" 15	6.60	2.00	8.60	4.010	0.292
" 22	6.60	1.60	8.20	3.743	0.350
" 29	6.20	2.20	8.40	3.743	0.304
Sept. 5	6.60	2.00	8.60	4.040	0.272

TABLE II.—(*Continued*).

(*Results given in Parts in* 100,000.)

For Week Ending—	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1874.					
Sept. 12	6.40	1.80	8.20	3.830	0.198
" 19	5.00	2.20	7.20	3.617	0.198
" 26	5.60	1.60	7.20	3.404	0.185
October 3	5.00	1.20	6.20	3.404	0.189
" 10	5.40	2.68	8.08	3.404	0.220
" 17	5.12	1.96	7.08	3.617	0.198
" 24	6.20	2.00	8.20	3.404	0.194
" 31	5.40	3.00	8.40	3.617	0.212
Nov. 7	6.60	2.80	9.40	3.617	0.185
" 14	6.40	1.60	8.00	3.830	0.145
" 21	6.40	1.80	8.20	3.830	0.121
" 28	5.60	2.40	8.00	3.617	0.129
Dec. 5	6.60	1.40	8.00	3.617	0.121
" 12	6.00	2.00	8.00	3.617	0.145
" 19	6.20	1.80	8.00	3.617	0.185
" 26	6.40	1.60	8.00	3.404	0.129
1875.					
January 2	6.00	1.80	7.80	3.617	0.081
" 9	6.20	1.40	7.60	3.494	0.121
" 16	6.00	2.20	8.20	3.494	0.121
" 23	6.20	1.40	7.60	3.494	0.162
" 30	6.20	2.60	7.80	3.494	0.145
Feb. 6	5.00	1.20	6.20	3.225	0.081
" 13	4.60	1.80	6.40	2.150	0.185
" 20	4.00	1.40	5.40	1.882	0.217
" 27	3.40	1.60	5.00	2.150	0.209
March 6	3.20	1.60	4.80	2.150	0.354
" 13	3.60	2.00	5.60	1.882	0.322
" 20	3.60	1.80	5.40	2.150	0.161
" 27	3.20	1.80	5.00	2.150	0.161
April 3	3.80	2.00	5.80	2.150	0.129
" 10	4.00	1.00	5.00	2.150	0.217
" 17	3.60	1.80	5.40	2.419	0.185
" 24	4.20	1.80	6.00	2.419	0.217
May 1	4.20	1.80	6.00	2.688	0.217

TABLE II.—(*Continued*).

(*Results given in Parts in* 100,000.)

For Week Ending—		Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
1875.						
May	8	5.40	1.00	6.40	2.688	0.209
"	15	4.80	1.60	6.40	2.956	0.207
"	22	5.20	1.80	7.00	3.225	0.200
"	29	5.40	1.80	7.20	3.494	0.215
June	5	7.00	1.80	8.80	3.763	0.215
"	12	6.60	1.80	8.40	3.763	0.153
"	19	6.80	2.00	8.80	3.763	0.168
"	26	6.80	2.40	9.20	3.763	0.183
July	3	6.40	2.40	8.80	4.032	0.200
"	10	6.20	2.40	8.60	4.032	0.261
"	17	5.80	2.80	8.60	3.763	0.200
"	24	5.76	1.96	7.72	3.494	0.218
"	31	6.00	2.00	8.00	3.494	0.200
August	7	5.60	2.00	7.60	3.225	0.230
"	14	5.92	2.00	7.92	3.441	0.261
"	21	5.28	2.24	7.52	3.225	0.308
"	28	4.92	2.24	7.16	3.225	0.383
Sept.	4	6.02	1.78	7.80	3.494	0.308
"	11	6.88	2.32	9.20	3.763	0.293
"	18	6.76	2.12	8.88	3.763	0.323
"	25	7.32	1.84	9.16	3.763	0.200
October	2	7.44	1.84	9.28	3.763	0.200
"	9	7.12	1.96	9.08	3.763	0.220
"	16	7.64	1.56	9.20	3.763	0.169
"	23	7.36	1.76	9.12	4.581	0.153
"	30	6.92	1.72	8.64	3.644	0.220
Nov.	6	7.44	2.16	9.60	4.163	0.206
"	13	6.96	1.76	8.72	4.214	0.184
"	20	7.00	1.60	8.60	3.989	0.231
"	27	6.48	1.72	8.20	4.120	0.262
Dec.	4	6.20	1.68	7.88	4.077	0.296
"	11	5.60	1.60	7.20	3.225	0.222
"	18	4.96	2.48	7.44	3.170	0.236
"	25	5.12	1.28	6.40	3.494	0.181

The averages of the results obtained from a weekly examination of the Croton water during the past four years are as follows:

(*In Grains to the U. S. Gallon of* 231 *cubic inches.*)

YEARS.	Inorganic Matter.	Organic and Volatile Matter.	Total Solids.	Carbonate of Lime "Hardness."	Oxygen required to Oxidize Organic Matter.
For 1873	3.634	0.925	4.560	1.978	0.078
For 1874	3.395	1.029	4.424	1.942	0.096
For 1875	3.298	1.070	4.368	1.922	0.123

(*In Parts per* 100,000.)

For 1873	6.230	1.590	7.82	3.395	0.135
For 1874	5.830	1.760	7.59	3.332	0.166
For 1875	5.656	1.835	7.491	3.293	0.211

Respectfully submitted,

E. WALLER, PH. D.,
Chemist.

REPORT

ON THE

MANUFACTURE OF CIGARS IN TENEMENT-HOUSES.

NEW YORK, October 25, 1874.

W. DE F. DAY, M. D.,
Sanitary Superintendent:

SIR—In accordance with your directions we have inspected a number of factories and tenement-houses in which cigars are manufactured, and have the honor to submit the following report:

In accumulating data for this report, and in making it up, we would say that our observations have been made entirely independently of each other, and that there has been the least possible comparison of results, until these results had been by each separately committed to writing.

In making these inspections we have been into each room in which the manufacture of cigars was being carried on, as well as into the other rooms; have seen the people at their work and at their meals; have talked with them and with their employers, when we have chanced to meet the latter; and have thus enjoyed the best opportunity for judging for ourselves of the effects upon the workmen and their families of their peculiar environment.

Of all the complicated questions which have lately arisen in regard to the workers in tobacco, the only one which has been submitted to us for investigation is that which relates to the comparative state of health of those who work at their own homes and those who work in shops, and the comparative sanitary conditions under which they respectively labor.

The principal points to be observed in such an inquiry are the following:

Air, *light*, *ventilation*, *food*, *cleanliness*, and *material emanations*, and in this order we shall consider them.

AIR.

By this heading is meant the air-space provided for each individual in the work-room.

In the work-room of Lichtenstein Bros., No. 268 Bowery, measuring 90 x 33 x 15 feet, there are usually about 120 operatives.

This gives each person a fraction over 371 cubic feet of air-space.

In the factory of D. Levy & Co., No. 90 Bowery, the principal work-room measures 90 x 25 x 14 feet, and is occupied by about 85 persons. This gives each person a fraction under 305 cubic feet of air-space.

The air-space for the operatives, numbering about 120, in the work-rooms (measuring together 65 x 36 x 12 feet) of Wangler & Hahn, at 290 and 292 Bowery, is 234 cubic feet for each person.

We have been through a large number of cigar factories, and the above are fair samples of the average work-room in such establishments, both in size of room and number of occupants.

In the tenement-houses we have visited a large number of families engaged in cigar-making. These families, as a rule, are small, and but few persons work together in the same room. One of us took accurate notes of 66 such families, and the other of 148—a number which we think is sufficiently large to serve as a basis for an average. These families were not selected ones, but were taken as they came under our notice, and include all the families in 17 large tenements, with a few from other houses.

The group of 66 families consists of 219 persons, including children and infants, giving an average of about 3⅓ persons to a room or suite of rooms.

The work-room, which is generally the sitting-room, kitchen, and dining-room of the family, according to the estimate of one of us, measures usually about 15 x 16 x 8 feet, giving an air-space of 576 cubic feet to each person, or an average of 60 per cent. more than that of the largest factory-room.

The group of 148 families was found to include 577 persons, including infants and children, giving an average of 3.89 persons to a room.

According to an independent estimate made by the other one of us, the average dimensions of this same kitchen and work-room are 16 x 14 x 8½ feet, furnishing an air-space of 489 cubic feet to each person, or an average of 32 per cent. more than that of the most spacious factory-rooms.

It should be remarked that these figures do not represent the full advantage as regards air-space possessed by the workers in tenements over those in factories; for in the figures applying to factories only the *workers*, whereas in those applying to tenement-houses *all* persons in the family, *whether workers or not*, have been included, thus doing injustice to the tenements in that many of the children are much of the time away at school, out of doors, or in other rooms in which there is no tobacco.

LIGHT.

The shops are usually well lighted by windows at both ends, and the tenement-house workers labor at the windows. Both have plenty of light.

VENTILATION.

The shops and tenements can both be well ventilated by opening the windows and doors, but for purposes of warmth they are usually kept closed during working hours, and the air of the rooms is bad. For the reason given above, the deterioration of the air in the houses is less rapid than in the shops.

FOOD.

Those who work in tenement-houses have an advantage over those who work in shops, in the possession of greater facilities for the preparation of the midday meal. Some of those who work in shops either patronize a neighboring restaurant, or go home to dinner, if they are near enough; but most of them eat cold sausage or cheese with bread, or something of the sort, or perhaps some dish which they hastily warm on the common stove, while those who work at their own homes appear, as a rule, to provide hot, well-cooked meals.

With regards to the effects of the emanations of tobacco upon the exposed food, it seems to us the advantage would lie with neither.

CLEANLINESS.

In this respect, it must be confessed, the tenement-houses are far in advance of the shops. There is less litter upon the floors, less odor in the atmosphere, and far greater evidence of care and pride in the condition of the apartment. In fact, the working at an objectionable trade in one's own home would naturally lead to greater cleanliness, and care for appearances in person and surroundings, than the opposite.

In these five cardinal points nothing certainly can be urged against the manufacture of cigars in tenement-houses. There remain several minor points to be considered.

The shop-workers go to their work at about 7 A. M. and leave at 6 P. M. The home-workers, of course, can work as early and as late as they please.

The wages earned by a single workman in the factory average higher than those he can make in a tenement-house, for the reason that the commoner qualities of tobacco are principally given out to be made up in the tenements, for which, of course, a less price is paid per thousand, while the choicer qualities of seed Havana, etc., are reserved for manufacture under the eye of the superintendent in the shop. But there is a compensation for this in the fact that, by the tenement-house plan, many members of the family, the aged and rheumatic, the housewives, the mothers with nursing children, the daughters whom their parents would be unwilling to trust to the temptations and vicious associations of the shop, and even the school children in their hours of leisure, can all lend a hand toward swelling the family income to a figure considerably beyond what it would be were the work only to be done in the factory. By the tenement-house plan, widows, with dependent families of small children, can not only keep them from want, but in comfort. The time spent by others in going to and from their work is also saved. The increased income of families, gained in these ways, is a source of greater comfort and happiness to them. They have more rooms, better furniture, better food, and better clothing, than if they were more limited in their means of earning. In so far, the results of home work are beneficial. With regard to the advisability of thus increasing the hours of labor, we have nothing to say. It relates rather to the economic than the sanitary aspects of the question, and the answer had better be left to the natural interaction of social forces.

In our opinion, then, the home-workers labor under quite as good sanitary conditions as the shop-workers. During the day these conditions are very nearly the same for both, with a slight advantage in favor of the former. What are the effects upon the non-workers, the children and infants, of exposure to the emanations of tobacco ?

A categorical answer to this question could only be given after a very long, searching, and patient investigation, and the proper sifting of a large accumulation of statistics. But as far as our observation and inquiry have gone, the children of families who work in tobacco at home are quite as healthy in appearance, and as little prone to disease, as the average of children who are born and reared in tenement-houses.

There are quite as many plump and rosy babies, and quite as few puny and sickly ones, as will be found in tenements of equal size where no tobacco is manufactured. We mean, of course, in proportion to the whole number of babies in such houses. For it is undeniable that the number of children in the families of tobacco workers is surprisingly small. In the 66 families of which one of us took notes, as above mentioned, there were only 70 children, or an average of only a little over one to each married couple. And in the 148 families visited by the other there were only 234 children, making an average of 1.58 to each married couple. When one considers the swarms of children that usually grow up in tenement-houses, in the families of the laboring and artisan classes, the paucity of offspring in a particular class becomes significant. In connection with the observations which were recorded in a report by one of us to the Board of Health last year, upon cigar factories, might it not reasonably be considered that this fact is corroborative of views therein expressed with regard to the effect of tobacco upon the vigor of the reproductive system ?

With regard to the emanations from tobacco, the best evidence we could command was that afforded by the sense of smell. The odor of tobacco was much less pungent and irritating in the rooms of the home-workers than in many of the shops which we visited. The halls and passages of the houses in which cigars are manufactured are almost entirely free from the tobacco odor, and other families living in the same house with cigar-makers have testified to us of the cleanly habits of the artisans, and the inoffensive character of their employment.

At night, as we are informed and have reason to believe, all the unmanufactured tobacco is carefully collected and wrapped up, so as to exclude the external air. For the making of cigars, the tobacco must be sufficiently moist to prevent its breaking and cracking, and so during the day it gives off no visible dust. If it were left exposed all night, it would dry rapidly, and by morning be so altered as to be unfit for use. Being carefully covered, therefore, during the night, there is very little smell from it during the hours of sleep, probably not more than a box or two of cigars may impart to an apartment in which they are kept ; and when we consider that a large majority of laborers and mechanics keep tobacco or cigars in their rooms, and fill their rooms with tobacco smoke before going to bed, we think it can hardly be shown that the home-manufacturers of cigars are any more exposed to deleterious influences from tobacco in their rooms than any other class of the tenement-house population.

Another question remains to be considered, viz. : Whether the tobacco leaves act as fomites, and serve to propagate contagious diseases throughout the houses into which they are introduced.

We have been able to discover no evidence that such is the case. There have been many cases of small-pox in families engaged in cigar-making which have never come to the notice of the sanitary authorities until death took place, and which, probably, represent a certain proportion of cases which always remains undiscovered. The tendency to conceal such cases is a natural one. The knowledge that a case of small-pox existed in such a family, if bruited about, might and probably would seriously injure their business, and it is not surprising that they prefer to keep it quiet, and allow it to recover without the knowledge of outsiders. But it is the same with any family who carry on a small business in their own house. A baker, a milliner, a fancy goods dealer, a grocer who lives in the rear of his shop, shows the same desire for concealment, and would be superhuman if he did not. That the business of cigar-making in tenement-houses has influenced the spread of contagious disease in any other way than this, we cannot believe. That the tobacco itself gives origin to such diseases is, of course, too absurd for discussion.

We have now given the results of our investigation somewhat at length, and will briefly recapitulate them. We find that the home-workers, as compared with the shop-workers, have more air-space, as good ventilation and light ; that their apartments are quite as cleanly ; that their children appear as healthy. In addition to this, they earn more money, are enabled to live in better quarters, have better food, and can afford more of the luxuries and elegancies of life, and, in so far, are living under better hygienic conditions ; that they pass their hours of sleep under, probably, as favorable conditions ; and that they do not, as a rule, occasion any nuisance to their neighbors. With all this, however, there is evidence enough that the manufacture of cigars is not a healthful employment; but we believe that its evil effects are equally felt by those who work in shops or at home.

The following is a list of the tenement-houses visited by us, in which the manufacture of cigars is carried on:

Third avenue and Eighty-first street.
328 East Seventy-fifth street.
212 Third avenue.
223 Second street.
226 “ “
220 “ “
230 “ “
237 “ “
414 Fifth “
420 Sixth “

With notes of 66 families.

Comprising 219 persons, or about 3$\frac{1}{3}$ to each family.

With 70 children, or 1$\frac{1}{16}$ to each family.

224 Elizabeth street.
226 “ “
228 “ “
230 “ “
232 “ “
201 Chrystie “
203 “ “
117 Ridge “
29 Pitt “
31 “ “
112 Sheriff “
415 East Houston street.
88 Columbia “
119 Lewis “
121 “ “
492 Ninth avenue.
494 “ “

With notes of 148 families.

Comprising 577 persons, or about 3$\frac{9}{10}$ to each family.

With 234 children, or about 1$\frac{1}{2}$ to each family.

After the above report was written and ready to be submitted to you, we received instructions from you to visit several additional houses. We have done so, and present the results in the following addendum to the original report. We have found no reason to change any of the views heretofore expressed, and would only call attention to the remarkable corroboration which these later visits furnish of the statistics and conclusions hereinbefore given:

419 East Thirteenth street.
436 “ “ “
446 “ “ “
422 “ Tenth “
642 Fifth street.
122 Third “
222 “ “
84 Sheriff “

Comprising 58 families.

Including 195 persons, or about 3$\frac{1}{8}$ to each family.

With 66 children, or 1$\frac{1}{7}$ to each family.

403 East Houston street.
109 Broome "
152 Attorney "
171 Allen "
192 Eldridge "
14 Avenue C.

Comprising 53 families.

Including 228 persons, or about $4\frac{1}{4}$ to each family.

With 95 children, or about $1\frac{3}{4}$ to each family.

It will be seen that these figures show as plainly as the others the comparative infertility of tobacco-workers. One family was found in which there were seven children. This being so remarkable an exception to the general rule, the family history was traced, and it was ascertained that the parents had only worked at cigar-making for four years, having previously been farmers, and having had the greater portion of their numerous progeny while engaged in the latter occupation.

Respectfully submitted,

NATH'L B. EMERSON, M. D.,
Assistant Sanitary Inspector.

ROGER S. TRACY, M. D.,
Sanitary Inspector.

REPORT OF INVESTIGATIONS

INTO THE

PATHOGENY OF DIPHTHERIA,

CONDUCTED BY

EDWARD CURTIS, M. D. AND THOMAS E. SATTERTHWAITE, M. D.

NEW YORK, February 11, 1877.

To the Board of Health:

GENTLEMEN—I have the honor to submit herewith a report of investigations made in accordance with a resolution of the Board of Health, passed November 24, 1874, as follows:

"*Resolved,* That Dr. Edward Curtis be requested, with the concurrence and under the supervision of the Sanitary Committee, to investigate the causes and nature of diphtheria by means of micro-pathological examinations and otherwise."

At my request Dr. Thomas E. Satterthwaite was associated with me in the investigation, and the experiments made were conducted by us jointly.

Very respectfully, your obedient servant,

EDWARD CURTIS, M. D.,
Honorary Microscopist to the Board.

PART I.—GENERAL REPORT.

By the broad instructions to investigate the "causes and nature of diphtheria," we conceived that we were desired to work at some point in the pathogenesis of the disease, whose solution was important and at the same time seemingly within the means of laboratory experimentation. Accordingly we took for our subject the question which has already attracted so much attention from its supposed solution in Germany, viz: *what is the nature of the infectious principle of diphtheria, and what are the circumstances that determine the infection.*

Considering it already sufficiently proven that the false membrane of diphtheria is able to communicate the disease, we made our search for the infectious principle in this material. The first point was to know the morphological elements of the membrane. Concerning most of these there has never been any doubt; fibrin, epithelial cells, leucocytes and granular matter being easily recognizable. These elements we found in varying proportion in most of the sixteen[1] membranes examined by us, and in three[2] there was also the mycelium, and in one[3] of the same also the spores of a fungus, apparently an aspergillus or penicilium. But the important point was to determine the presence or absence in the membranes of *bacteria*, since these organisms have been alleged to be not only always present, but also to contain or be the noxious element. Accordingly we searched our membranes with special care for bacteria, with the following result: Small rod-bacteria, precisely similar in form and size to those found upon the mucous membrane of the healthy mouth, we found almost always present, though in greatly variable quantities, scattered throughout the tissue of the false membrane. Besides these rod-forms there also occurred in many, though not in all, of our membranes, distinct collections of closely packed bacteria, apparently either firmly glued together or else encased in a delicate invisible envelope. For these collections, or "balls" or "nests," could be isolated and rolled about and subjected to heavy pressure by pressing upon the cover of the microscopical slide, without losing their form or coherence. Similar balls or masses have been repeatedly seen by us in non-diphtheritic matter infested with bacteria. On treating membrane containing these balls with an alkali, the balls disappear as such, and the field becomes crowded with short rod-bacteria. From this fact it is likely that these balls are not, as their appearance first suggests, wholly collections of *spherical* bacteria, but that much of their contents at least is the ordinary rod-form of bacteria, which here looks spherical simply because the individuals are closely packed side by side with their ends presented to view. The same illusion of minute spheres is commonly met with wherever, as upon the papillæ of the healthy tongue, rod-bacteria are closely massed together. In addition, free spherical granules presenting the optical characteristics of bacateria were often met with, but rarely except in company with the free rods and the balls of massed bacteria already described. Upon these granules we tried the various chemical and coloring tests for bacteria proposed by Hiller, Letzerich and Eberth, but we found the tests so unreliable that we dared not base conclusions upon their showings. Inasmuch furthermore as the granules in question were almost always associated with unmistakable bacteria, and were in no wise different in appearance from the similar granules found commonly in all bacteria-infested matter, whether diphtheritic or not, we did not attach much importance to the determining whether or not the granules were themselves bacteria. Whenever, therefore, it may be remarked in passing, statements are made in this report about *bacteria*, either rods or balls of massed bacteria—both definitely recognizable by the microscope—are always meant.

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[1] Several specimens were examined which do not appear in Part II., because no use was made of them for experimentation.

[2] Cases VI., XI., and XIII. See Part II., pp. 677, 689, 690.

[3] Case XI.

So far then as regards the presence of bacteria in our diphtheritic membranes, we found abundant evidence of the existence of the form described by other observers, but these forms were in no wise different in optical or chemical behavior from the bacteria found in putrescent but non-diphtheritic animal matters.

The morphological elements being thus determined, and being found to present nothing *sui generis* in form, we proceeded to our proposed experimentation, which was to inoculate living animals with diphtheritic membrane under varying conditions. The idea was that if, as alleged,[1] inoculation will produce diphtheria in the inoculated animal, then, by varying the conditions, the nature of the poisonous principle and the determining circumstances of infection might be discovered. The animal chosen for experimentation was the rabbit, partly because we had not the facilities for dealing with larger or more troublesome animals, and partly because some German investigations, with which it was desirable that ours might be compared, were also conducted upon rabbits.

The first point was to determine, as a basis for comparison, the effect upon the rabbit of simple inoculation of fresh diphtheritic membrane. Following Eberth,[2] we first tried inoculating the cornea. This was done by pricking and scratching the cornea with a needle, then rubbing into the abrasions a bit of diphtheritic membrane, and finally holding the lids shut for a few minutes with the piece of membrane inside. According to Eberth[3] this proceeding begets an extensive diphtheritic keratitis with constitutional symptoms and even termination in death. In our hands, however, nothing resulted but small local spots of inflammation at the site of each puncture, which appeared the day after infection, and speedily subsiding, left the eye well by the fourth or sixth day. No severe constitutional symptoms appeared, and none of the animals died except one whose thigh was also inoculated. These inoculations were tried with four[4] different diphtheritic specimens. In three[5] of these it is an open question if the material inoculated was active, but in the third[6] case there is no such doubt, for the same membrane, which was thus almost wholly innocent upon six corneæ, produced extensive lesions and proved fatal in forty-five hours when inoculated into the muscular tissue of the thigh.[7] On account of these failures we abandoned trying the cornea, and in all subsequent inoculations resorted to the muscular or subcutaneous connective tissue. Where the material to be inoculated was solid, as with bits of diphtheritic membrane, it was inserted into the muscular tissue either of the fore or hind leg, by the following method: A snip is made through the skin and subcutaneous connective tissue an inch or more distant from the intended site of inoculation in the muscle; then the skin is drawn along till the hole exposes the muscle, when a cut is made into the latter tissue, and the inoculating material pushed into the wound. The skin being then let go, resumes its natural position, and the inoculated substance is retained in place without the need of a suture. Where the inoculating material was fluid it was simply injected subcutaneously by an ordinary hypodermic syringe. Thirty-eight rabbits were thus inoculated with pure diphtheritic membrane from twelve different specimens.[1] Of these animals twenty-seven were inoculated with bits of solid membrane, the size of the pieces varying with the amount of material on hand, but varying from one-sixteenth to one-fourth inch square. The other eleven animals were injected with aqueous infusion of the membrane, made by cutting the latter up fine, thoroughly triturating it with cold water, and then injecting the turbid infusion after the larger pieces of membrane had settled. Of the inoculations with solid matter all but three[2] were double, that is, were made upon both the opposite legs of the animal, hind or fore, as the case might be. Of the infusion injections all but four[3] were similarily double. Of the thirty-eight animals inoculated, four[4] showed no effects whatever, local or constitutional. Of these, three[5] had been inoculated with the membrane of Case IV.,[6] which was a soft, glutinous material, made up of leucocytes and granular matter imbedded in mucus. It had formed in the nose of a three-year-old child on the second or third day of an acute nasal catarrh, and had become detached a day or two later, the child recovering without any alarming symptom. Both the appearance of the membrane and the history of the case thus made it doubtful if the disease in this instance were really diphtheria. All the other animals, inoculated, thirty-four in number, developed local lesions at one or both sites --generally both—of varying degrees of intensity. The great majority also showed constitutional symptoms, and twenty-two died. One death,[7] however, is doubtful, as the rabbit was found half out of his cage, wedged between the bars, and may have injured himself. But this case is fairly offset by a doubtful recovery,[8] where the local lesion was bodily removed on the fifth day, and the animal slowly recovered, whereas, four[9] other rabbits inoculated with the same membrane and left untouched, all died. Of the twenty-one genuine deaths, five[10] took place between the first and second day after inoculation, thirty hours after being the earliest period—six[11] between the second and third day, one each on the third,[12] fourth,[13] sixth,[14] fourteenth,[15] nineteenth,[16] and twenty-first,[17] two on twenty-third,[18] and one each on the thirty-first[19] and thirty-eighth[20] days.

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[1] Oertel, Eberth and others.

[2] Zur Kenntniss der Bacteritischen Mykosen. C. J. Eberth, Leipsig, 1872.

[3] Op. cit.

[4] Cases I., II., III., IV. See Part II., pp. 671, 672, 673, 675.

[5] Cases I., II., and IV.

[6] Case III.

[7] Experiment 8. See Part II., p. 674.

Our results thus confirmed those of other investigators, namely—that the matter of diphtheritic membranes inoculated into the muscular tissue of rabbits proves poisonous, and in the majority of cases fatal. But it still remained to be determined whether, as alleged, the disease produced, be actually diphtheria. To decide the question the first step obviously was, to compare the rabbit-disease produced by these inoculations with diphtheria as it occurs in the human subject. A study of our cases showed that the inoculation disease, though differing greatly in severity, course and results in different instances, yet was always the same process, as follows: At varying periods after the inoculation a lump appears under the skin at the inoculated spot. On cutting down upon it, a yellowish white mass is exposed protruding from the wound in the muscle into the connective tissue in the line of communication between the original skin and muscle-openings. When first formed, this mass is homogeneous, of pasty consistence, and when examined microscopically is seen to consist of the loose substance of the connective tissue densely infiltrated with leucocytes, and also with greater or less numbers of bacteria according as the original inoculated material was rich or poor in these elements. Around this patch or lump of infiltrated connective tissue there will be found more or less evidence of an irritant action. In the severest cases there will be intense hyperæmia of all the circumjacent parts, ecchymotic spots and extensive serous infiltration. In the animals that die early, these lesions are especially prominent, and in some cases death occurs before a lump has time to form at all.[1] But in cases not speedily fatal, the symptoms of great irritation are generally wanting, and the lump produced by formation of leucocytes develops slowly and apparently without any affection of the general health of the animal. In such case there will be but comparatively few bacteria to be found in the lump. The course of the disease in these cases follows two types. Either the lump, generally of small size, slowly disappears by absorption, leaving nothing but a cord of thickened connective tissue, or the material of the lump softens by fatty degeneration; the skin gives way, and a running sore is established with more or less burrowing of pus into the adjoining tissues. When the latter course develops itself, the animal frequently becomes emaciated; its fur unclean and mangy; it refuses food, and finally dies after a greater or less period, often extending over several weeks, with all the signs of general exhaustion. In cases where running sores and extensive burrowings of pus take place, the matter commonly becomes offensive and swarms with bacteria. In all types of the disease, there is a notable absence of lesions of any distant part. No exudations appear either upon any of the mucous membranes or upon any wounds which may be present, and there is no constant or even frequent lesion of any organ. In many cases we examined the blood, post-mortem, for bacteria. and while these bodies were found in about half the cases examined, their presence did not seem specially related to the presence of bacteria in the local lesion, nor did they occur more frequently than in the blood of non-inoculated animals, dead an equal length of time.

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[1] Cases III. to XIV. inclusive.

[2] Experiments 12, 13 and 24.

[3] Experiments 14, 31, 32, 33.

[4] Experiments 12, 13, 14, 60.

[5] Experiments 12, 13, 14.

[6] See Part II., p. 675.

[7] Experiment 62. See Part II., p. 691.

[8] Experiment 23. See Part II., p. 679.

[9] Experiments 21, 22, 24.

[10] Experiments 8, 17, 18, 19, 39.

[11] Experiments 20, 45, 52, 53, 54, 63.

[12] Experiment 40.

[13] Experiment 36.

[14] Experiment 35.

[15] Experiment 58.

[16] Experiment 22.

[17] Experiment 21.

[18] Experiments 25, 68.

[19] Experiment 26.

[20] Experiment 24.

In the above described disease we failed to see anything specifically resembling diphtheria as it occurs in the human subject. The whole story seemed to be one of local irritant poisoning, which always tended towards the production of an abscess at the site of inoculation, with greater or less concomitant hyperæmia, ecchymoses, and serous infiltration of neighboring tissues, according to the degree of virulence of the inoculated poison. According, also, to the severity of the primary lesions, the animals would die or survive the immediate effects; and according to the secondary history of the mass infiltrated with leucocytes—according, namely, as the mass was re-absorbed or softened and ulcerated—the animal survived unaffected, or slowly wasted away and died of exhaustion. But it might, not without reason, be argued that a rabbit is a widely different animal from a man, and that a disease induced by subcutaneous inoculation might naturally differ in its manifestations from the same, occurring idiopathically; hence, that the described affection of rabbits might still be true diphtheria, although wanting in the specific characteristics of that disease as seen in the human subject. To determine this point we proceeded to try if effects similar to the foregoing would follow the inoculation of a material resembling diphtheritic membrane in its anatomical and chemical character, but yet not only *not* diphtheritic, but even incapable of producing any noxious effect under circumstances where diphtheritic membrane often proves highly infectious. Such a material presented itself in the *scrapings from the upper surface of a somewhat "furred" tongue from a healthy person.* These scrapings, while obviously not infectious when brought in contact with the pharyngeal mucous membrane, yet contain anatomical elements of similar character, and in similar vital condition, to those of the diphtheritic membrane. They also swarm with countless bacteria.

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[1] See Experiment 8. Part II., p. 674.

Such scrapings, inodorous when fresh, acquire a peculiarly offensive fœtid smell even within a few hours. Inoculations with this pulpy material were then made in the usual way, with the following results: Three animals were inoculated with the matter freshly removed.[1] Of these, one[2] died between the fourth and fifth day with a lump in each thigh, in all respects similar to that produced by the diphtheritic inoculation. One[3] died on the fourteenth day, with similar lumps, which had softened and ulcerated; and the third[4] on the twenty-fifth day, with widely extended burrowings of pus and secondary peritonitis. Four other rabbits[5] were inoculated with tongue-scrapings twenty-four hours old and fœtid. Of these, the first[6] developed a large lump of the usual character in twenty-four hours. This was then removed entire for study, and the animal survived with no further lesion. The other three animals were let alone; all developed the usual lesions, and all died on respectively the fifth,[7] nineteenth,[8] and twenty-fifth[9] days. A third series[10] of two rabbits were inoculated with the mixed scrapings of five successive mornings, which was exceedingly offensive to the smell. One[11] died on the sixth day with the usual lumps, but as this was a young animal from a litter some of which died without having been experimented on at all, it is an open question whether or not the death in this case was due to the inoculation. In the other rabbit[12] lumps developed, which ulcerated and discharged foul matter. The animal suffered also in its general health, but ultimately recovered.

These series of experiments thus developed the important fact that certain non-diphtheritic and non-infectious matters will, when inoculated upon the rabbit, produce a disease closely similar to, if not identical with, the disease caused by the inoculation of diphtheritic membrane, and one, also, equally fatal in its effects. But inasmuch as tongue-scrapings are open to the suspicion of containing some peculiar poison derived from the animal body, we determined to experiment with a substance which should be free from such objection, while still resembling diphtheritic membrane and tongue-scrapings in the matter of being putrescent and swarming with bacteria. We accordingly chose *Cohn's fluid*, which had passed into a state of decomposition. This fluid is simply a solution in distilled water of ammonium tartrate, potassium phosphate, and magnesium sulphate, to which also a little calcium phosphate is added.[13] Upon exposure in a warm place, bacteria appear in this fluid in great numbers, and out of the salts present new compounds are formed of a strongly putrid smell. Inoculations were made with this putrescent material, as follows: Two animals[14] were inoculated in the usual way with the pulpy sediment forming at the bottom of the bottle, and obtained by straining the fluid. Both developed the usual purulent lumps, but with little attendant irritation or constitutional disturbance. In both, the lumps gradually disappeared by absorption and atrophy, and the animals survived. Four rabbits[15] were inoculated by hypodermic injection with the lower stratum of liquid in another sample of the decomposed fluid. Lumps, as usual, formed at the site of each injection; one animal died on the tenth day, the other three survived. Four[1] rabbits were injected hypodermically with the upper stratum of liquid in still another sample. Lumps again appeared at each inoculated spot, but they were small, and all the animals survived. The same procedure in four[2] other rabbits with a fourth sample of fluid produced like effects in three of the animals, but in the fourth no lumps discoverable by feeling the spot, could be found. Fourteen animals in all were thus inoculated with the putrid Cohn fluid. Thirteen of them developed lesions identical in appearance with the characteristic lesions from inoculations with diphtheritic membranes and tongue-scrapings, but the collateral effects were not so severe, and only one animal[3] died from the effects of the inoculation. In short, then, putrid Cohn's fluid, inoculated upon the rabbit, poisons after the same *manner* as diphtheritic membrane, though not to the same *measure.*

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[1] Experiments, 73, 74, 75. See Part II., pp. 694, 695.

[2] Experiment 73.

[3] Experiment 75.

[4] Experiment 74.

[5] Experiments 76–79. See Part II., pp. 695, 696.

[6] Experiment 76.

[7] Experiment 79.

[8] Experiment 77.

[9] Experiment 78.

[10] Experiments 83, 84. See Part II., p. 698.

[11] Experiment 84.

[12] Experiment 83.

[13] Ammonium tartrate, 1.0; potassium phosphate, magnesium sulphate, aa 0.5; calcium phosphate, 0.05; distilled water, 100 c. c.

[14] Experiments 91, 92. Part II., p. 700.

[15] Experiments 93–96. Part II., p. 701.

It would seem therefore that the disease produced in the rabbit by inoculations of diphtheritic matter, is not only not specifically diphtheritic in character, but not even peculiar to the diphtheritic infection ; since a disease essentially similar, if it be not pathologically identical, is produceable, though in variable intensity, by inoculations of material at once non-diphtheritic and non-infectious to human mucous-membrane ; and even, it may be, not of animal origin. This fact being apparently established, the important corollary follows, that pathological and pathogenetic conclusions drawn from the effects of diphtheritic inoculations of the rabbit, do not *of necessity* apply to the disease diphtheria as it appears in the human subject. The many current hypotheses in the premises therefore, which rest upon such animal experimentation, are built upon a quicksand.

This conclusion being accepted, it was plain that to attempt to elaborate the *pathology of the diphtheritic process*, by study of the rabbit's inoculation-disease, would be a waste of time, and all thoughts of the same were accordingly abandoned. But though the inoculation-disease is not necessarily, nor even probably, diphtheria, yet it is possible, and indeed probable, that the poisonous element in the diphtheritic membrane, which will produce diphtheritic infection in man, is the same *kind of thing* as that which produces the inoculation-disease in the rabbit. Hence, it seemed to us to be a useful research to try to discover the nature of the infecting principle, whether of diphtheritic membrane, tongue-scrapings, or Cohn's fluid, which produces the inoculation-disease.

It was, in the first place, conceivable, though not likely, that the disease in question might be due simply to mechanical irritation. To decide this point, we sought an inoculating material which should combine physical roughness with freedom from poisonous property. These qualities being obviously present in *sand*, we inoculated two rabbits[4] with dry sand, after the usual method, and two others[5] with a pulp made of sand mixed with Liebig's meat-extract. Not the slightest symptom, local or constitutional, followed in any of the cases. At various subsequent dates, the tissues in the track of the original wound in the various animals were exposed and examined. The grains of sand were found scattered in the connective tissue ; this tissue was slightly thickened, but there was no trace of suppuration or other sign of irritation. It was seemingly evident therefore, as expected, that the cause of the inoculation-disease is other than mere mechanical irritation. The next point to be determined was, whether the poisonous principle is in solution in the fluid of the inoculating materials, or whether it resides in the solid elements of the same. For this inquiry, aqueous infusions of the infecting matters were filtered, and comparisons made of the effects of inoculation of the filtered and unfiltered fluids. Filtrations were made through various thicknesses of ordinary filtering paper, and also through porous clay. The experiments with paper-filtered fluids were as follows: An infusion of diphtheritic membrane[1] was made and filtered through a double paper-filter.[2] The filtrate, which was clear and odorless, was injected hypodermically into three rabbits.[3] All survived, two without even any local lesion, but the third with a large lump of the usual character, containing living bacteria, upon one side. None of the animals seemed to suffer in general health. At the same time the unfiltered infusion was injected into three other rabbits,[4] and all of them died before the end of the third day with severe lesions. With another sample of membrane,[5] one rabbit[6] was inoculated with the filtered infusion, and one[7] with the original solid membrane. The former escaped with scarcely any effect, local or general, the latter died in forty-five hours with extensive and severe lesions. An infusion of a third membrane[8] was allowed to putrefy for ten days, and was then filtered through a single paper filter. The filtrate contained living bacteria, and retained the putrid odor; but it produced no effect at all upon injection into two rabbits.[9] The unfiltered fluid was also injected into two rabbits,[10] but produced only slight lesions. One of these animals died the day after the inoculation, but it had jumped from its cage and was found dead on the floor, and it is altogether probable that death was caused by the fall. A filtered infusion of still another membrane[11] was injected into a single animal,[12] but since in this case the original membrane, upon inoculation, proved to be itself innocuous, this experiment is to be disregarded.

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[1] Experiments 97-100. Part II., pp. 701, 702.

[2] Experiments 106–109. Part II., pp. 703, 704.

[3] Experiment 94.

[4] Experiments 121, 122. Part II., p. 706.

[5] Experiments 123, 124. Part II., p. 706.

As may be at once seen, the general result of the above inoculations was, that paper-filtration tended to diminish the poisonous virulence of the infusions. But the experiments were not thorough, for the filtration was insufficient to entirely remove certain of the solid constituents (bacteria) from the infusions. The difficulty was that, from the small quantities of diphtheritic membrane at our disposal, we could never obtain a large enough bulk of strong infusion to permit of repeated paper-filtration, such as alone would separate, with reasonable thoroughness, all the solid elements of the infusion. We were forced therefore to turn to other infectious infusions, where the requisite bulk of fluid could be had to test the matter thoroughly. We accordingly took putrid Cohn-fluid and filtered it as follows, fresh filters being used at each successive filtration: Twice through single filters of ordinary gray filtering-paper; twice through double filters of the same; once through a triple, and once through a quadruple filter; and finally, thrice through quadruple filters of fine, white filtering-paper. The final filtrate, instead of the milky appearance of the original fluid, was but faintly opalescent, and, what was interesting and suggestive, had entirely lost the strong putrid smell of the non-filtered fluid. Under the microscope (one-tenth inch immersion objective of J. Beck), the fluid appeared perfectly clear, except that about half a dozen small bacteria were to be found in each microscopic field. This filtrate was then injected into four rabbits,[13] four other rabbits at the same time receiving injections of the unfiltered fluid.[14] The latter animals all developed the usual lumps at each site of injection, but all those injected with the filtrate remained absolutely unaffected. No lumps whatever could be felt upon the thighs at any period; and, to make sure, the skin over one thigh was snipped on the fourteenth day, and through the " window " thus made, the whole subcutaneous territory was thoroughly inspected.

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[1] Case X., Part II., p. 687.

[2] Part II., p. 689.

[3] Experiments 55–57.

[4] Experiments 52, 53, 54. Part II., p. 688.

[5] Case III., Part II., p. 673.

[6] Experiment 11.

[7] Experiment 8.

[8] Case IX., Part II., p. 685.

[9] Experiments 48, 49.

[10] Experiments 46, 47.

[11] Case IV., Part II., p. 675.

[12] Experiment 16.

[13] Experiments 102–105., Part II., p. 703.

[14] Experiments 97–100., Part II., p. 701, 702.

Not the slightest lesion was to be found ; it could not have been told that the region had been inoculated at all. Here, then, we seemed to have positive proof, so far as the experiments went, that thorough paper filtration would remove entirely the infectious element of the putrid Cohn-fluid. But here the following possible source of error was acutely pointed out by a friend.[1] During the very numerous filtrations above described, the fluid, falling slowly from the funnel drop by drop, had been submitted to a very thorough *aeration* as well as filtration ; and, since it was conceivable that the infectious element might be a volatile chemical compound, it might be that in the experiment the innocuousness of the filtrate resulted from dissipation of a volatile principle by the aeration, instead of separation of a solid element by the filtration. To determine this point, a funnel was plugged with a rubber stopper pierced with a small hole, through which fluid could pass only slowly and drop by drop. Some putrid Cohn-fluid was then passed through this funnel as many times as the number of filtrations of the sample used in the last-described experiment. This aerated but *unfiltered* fluid was then injected into four rabbits,[2] four other rabbits[3] being at the same time injected with the original fluid fresh from the bottle. Lumps were produced at each site of injection in the rabbits treated with the aerated fluid, exactly as in those injected with the non-aerated. This test experiment thus removed the possible flaw in the evidence obtained by the filtration injections, and left no doubt that by the separation of the solid elements of infectious infusions by thorough filtrations, the infectious principle tends to be removed. Further corroboration was afforded by experiments with a putrid infusion of calf's liver. Injections of the unfiltered infusion[4] produced lumps as usual, but the fluid, when filtered,[5] even through a single filter, failed to produce any effect.

Simultaneously with the above described experiments with paper-filtrates, injections were practiced with some infusions filtered through porous clay. To obtain such filtrates, a porous clay battery-cylinder was made use of. A piece of wide rubber tubing, connected with an exhausting syringe, was slipped over the closed end of the cylinder, and by exhausting the air in the tubing, a little of any fluid in the clay cylinder would be drawn through the bottom of the same, of course suffering very perfect filtration in the passage. Infusions of three separate diphtheritic membranes,[6] a sample of putrid Cohn fluid and the infusion of calf's liver, already mentioned, were severally thus filtered. In all cases the filtrate was perfectly clear, entirely free from odor, and, examined microscopically with a 1-10-inch object-glass, apparently totally devoid of all solid elements of any kind. The three filtered diphtheritic infusions were severally injected into three,[7] two,[8] and again two[9] rabbits, the filtered Cohn fluid[10] and liver infusion[11] each into a single rabbit. Not the slightest sign of a local lesion or of any constitutional disturbance followed any of these injections, while in all cases the unfiltered infusions were found upon injection to be more or less virulent.

These various experiments thus seemed to demonstrate beyond reasonable doubt that the infectious element in diphtheritic membrane, putrid Cohn fluid, and the like, is separable by filtration from an aqueous infusion. And when the filtration is thorough, as by means of the clay filter, the removal of all noxious principles from the infusion is apparently absolute. From this fact the inference may be fairly drawn that the infectious principle or principles is resident in some solid element or elements of the gross material, and cannot be separated therefrom to any recognizable extent by the action of cold water.

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[1] Dr. John S. Billings, U. S. Army.

[2] Experiments 110–113. Part II., p. 704.

[3] Experiments 106–109. Part II., pp. 703, 704.

[4] Experiment 114. Part II., p. 705.

[5] Experiments 116, 117.

[6] Cases VII., VIII., and IX.

[7] Experiments 28–30.

[8] Experiments 37, 38.

[9] Experiments 42, 43.

[10] Experiment 101.

[11] Experiment 115.

This being assumed to be true, the next important point for differentiation seemed to be to determine if the noxious principle be specially connected with the *bacteria* found in the infectious materials, and if it be co-extensive with the number and with the degree of vital activity of these organisms. The great practical importance of the question thus raised is obvious. For if, as has already been claimed,[1] the poison resides wholly in these organisms, and infection of the human system with diphtheria occurs only by bodily entrance of living bacteria into the blood, the whole current of preventive treatment will be turned to devising means for either destroying the vitality of such poison-bearing bacteria, or to prevent their passage through the tissue of the mucous membranes into the blood-vessels. In attacking this question by experimentation it was plain that a roundabout method must be adopted, since the direct plan of bodily separation of the bacteria from the other solid elements of the infectious material was obviously impossible. Hence the procedure that seemed to us most promising, was to treat a piece of diphtheritic membrane in such manner as to destroy as far as possible the vital activity of the contained bacteria, without otherwise affecting the elements of the membrane, and then observe the comparative effects of inoculation of the materials so treated on the one hand, and of the original pure membrane on the other. For carrying out the projected treatment, the obvious procedure of boiling the material was deemed improper, for, though by this means the bacteria would doubtless be killed, yet at the same time all albuminous matter would be permanently altered by coagulation. Failure to infect, on the part of boiled matter, might therefore with equal likelihood be assigned to the coagulation of an albuminous chemical poison, as to the killing of an assumed infecting living organism. For a similar reason, in resorting to the only other possible procedure, namely, impregnating the material with some agent fatal to bacterial life, all substances chemically disorganizing to animal matters were debarred from use. For an obvious reason furthermore it was necessary that the agent used should, itself, when inoculated, be practically free from all poisonous and even irritant effect. From all these considerations it seemed to us likely that the necessary conditions would be best fulfilled by impregnating the infectious matter with *Salicylic acid*, for we would seem to have in this substance one at once non-poisonous, slightly irritant only, with as little chemical action on animal products as could be expected, and yet with very great power to arrest more or less permanently the vital activity of bacteria and allied organisms. We accordingly determined to use this substance for the purpose described. But inasmuch as at the time of instituting these experiments (now nearly two years ago), much less was known than now of the properties of salicylic acid in its relation to living forms and substances, we deemed an investigation into these properties a necessary preliminary to the proposed inoculation experiments. We accordingly instituted two sets of experiments, one to determine the effect of salicylic acid upon the life and health of the rabbit, and the other to test exactly the degree of its power over the vital activity of bacteria. For the former purpose we inoculated a paste of salicylic acid and water into the muscular tissue of the thighs of three rabbits,[2] in the usual manner. No effect whatever followed, either constitutional or local, except a limited disintegration of the tissue impregnated with the acid.[3] But even here there was no reaction in the surrounding tissues, nor the slightest appearance of hyperæmia or infiltration of leucocytes. Next, to test more thoroughly the possible poisonous effect of the acid after absorption, we injected hypodermically salicylic acid dissolved in an aqueous solution of sodic phosphate.[1] A litter of young rabbits weighing 1¾ pounds apiece was used in the experimentation, and setting aside a death where the hypodermic needle accidentally pierced the liver, the result was that the animals which received five, ten, and fifteen grains, respectively, of salicylic acid, survived, but one which received twenty-four grains died in about twenty minutes. But in order to dissolve the twenty-four grain dose of the acid, seventy-two grains of sodic phosphate and nearly three fluid drachms of water were required, and to administer this bulk of fluid ten separate injections, of a syringeful each, had to be practiced one after the other at different points upon the back and belly of the animal. Conceiving therefore that the death after administration of this dose might be due, not to the salicylic acid, but either to the sodic salt or the physical violence of the repeated injections, the operation was repeated on another animal with a simple sodic solution, containing no salicylic acid;[2] death followed as in the former instance. From all these facts therefore there seemed no further question that in the comparatively small quantities in which it was intended to be used, salicylic acid was practically harmless to the rabbit. To test next the power of the acid over the vital activity of bacteria, test-tubes containing various putrefiable solutions were charged with graduated percentages of salicylic acid, set aside in a warm place and watched for the first beginning of turbidity, which, as is well known, is always a sign of beginning bacterial development. The results were as follows: In the first series of experiments Cohn's fluid was used,[3] and it was found that when the charge of salicylic acid was less than 1 part to 2,500 or 3,000, the solution became turbid almost as fast as plain Cohn's fluid, to which none of the acid had been added, namely, in three or four days. Where the charge was from 1 to 2,000 or 3,000 (the results varying slightly with different samples of the salicylic acid), clouding was postponed for several days later, and charges of 1 to 1,500 and upward kept the fluid perfectly clear during the twelve days that the observation of this series lasted. In another series human urine which had been boiled and filtered was used,[4] with the result that a charge of 1 to 2,500 was necessary to effect any postponement of the normal period of beginning turbidity, and that a charge of 1 to 1,000 was the lowest that kept the urine clear during the eight days of the observation. In another series where the observation was more prolonged a weak meat decoction already inoculated with living bacteria was employed.[5] This was made by first preparing the graduated solutions of salicylic acid in distilled water (the solution being effected by addition of a little sodic phosphate), and then inoculating a fluid drachm of each solution with a single large drop of a strong decoction of meat in which bacteria were already swarming. The results were as follows: Test-tubes charged respectively with 1 part of salicylic acid to 100 and 250 remained clear during the whole seventy-eight days of observation. Those containing 1 to 500 and 750 were clear on the twenty-eighth day, but were found cloudy when next examined on the seventy-fourth day. A charge of 1 to 1.000 postponed the clouding twenty-eight days, but charges of 1 to 2,500 and less had scarcely any influence. The general results of these experiments then was that even in practically minute proportion the addition of salicylic acid to putrefiable solutions prevents and suspends bacterial development.

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[1] Oertel.

[2] Experiments 125–127. Part II., p. 707.

[3] See Experiment 125. Part II., p. 707.

These various experiments thus seem to show that in salicylic acid we had an available material for our present purpose, namely, a substance practically harmless to the rabbit, of little chemical action upon animal matter, yet of great power to suspend or prevent the vital activity of bacteria. We accordingly proceeded to institute comparative observations between inoculations of pure diphtheritic membrane and tongue-scrapings on the one hand,

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[1] Experiments 128–133. Part II., pp. 707, 708.

[2] Experiment 137. Part II., p. 709.

[3] Experiments 139–175. Part II., p. 710.

[4] Experiments 176–186. Part II., p. 712.

[5] Experiments 187–206. Part II., p. 712.

and on the other, of the same substances thoroughly triturated before inoculation with salicylic acid. The experiments were as follows: In one case,[1] fourteen grains weight of diphtheritic membrane was first triturated with fourteen minims of water containing two per cent. of salicylic acid, and six per cent. of sodic phosphate in solution. Next, five grains of solid salicylic acid was added, and the whole thoroughly triturated in a mortar for half an hour. The pulpy mass thus formed was then inoculated in the usual way upon three rabbits.[2] All developed the usual lumps at the point of inoculation, but the lesions were not extensive, and the general health of the animal did not seem to suffer. One animal was accidentally killed a month after the inoculation, but the other two survived. The same membrane without the addition of salicylic acid was also inoculated upon two[3] rabbits, as a control experiment. One of these animals was found dead on the second day, and the other on the third, but in the latter case, the animal was found partly out of the cage, between the bars, and the death may have been caused by injury. In both there was diffuse inflammation with the usual pasty infiltration at the sites of the inoculation, but the lesions were not severe. In another case,[4] a piece of a different specimen of diphtheritic membrane was treated with salicylic acid in the same way as the foregoing, and inoculated upon three rabbits.[5] One animal was found dead on the fourth day, and examination showed the usual pasty infiltrations, although there was not much circumjacent inflammation. The second died on the fifteenth day, much emaciated, with large lumps of the usual character, and about the average degree of inflammation of surrounding parts. The third animal survived, but also developed large lumps which ulcerated and discharged a white creamy matter, almost devoid of smell. The same membrane, pure, was inoculated upon three rabbits[6] for comparison. All three developed lumps which ulcerated and discharged *offensive* matter. Two survived, one becoming somewhat thin and mangy, but subsequently recovering; and the third died on the twenty-third day, much emaciated, and with abscesses at the sites of inoculation. Analogous experiments with tongue-scrapings were as follows: Six grains weight of pulpy tongue-scrapings from a furred tongue, three hours after removal, was rubbed thoroughly with one grain of salicylic acid, and inoculated upon three rabbits.[7] The first animal presented on the sixth day an extremely emaciated and dull appearance, and had thick lumps in each thigh. These were pricked and the matter examined for bacteria, but only a few motionless rod-forms could be found. The animal died the next day. Rabbit No. 2 died on the sixteenth day, and post-mortem examination showed an extensive patch of yellow material at each inoculation site, with, however, no signs of circumjacent irritation. No living bacteria, and but very few motionless ones were to be found in the matter composing the patches. The third rabbit survived, and never lost his fine general condition, but large lumps, attaining on one side the size of a pigeon's egg, formed at the inoculated spots. The matter composing these was examined on the seventh and again on the twenty-fifth day, but no bacteria could be found on either occasion. These experiments were repeated with another specimen of tongue-scrapings, as follows: Some of the mixed scrapings of five successive mornings from a furred tongue was treated with salicylic acid solution, and then with the solid acid exactly as were the diphtheritic membranes in the experiments with the same last described. And it was an interesting and suggestive observation that, whereas the mixed scrapings before this treatment had, from their staleness, a horribly offensive odor, all smell disappeared after the salicylic acid was thoroughly incorporated with the mass. Six rabbits[1] were now inoculated with the acid-treated mixture. All developed lumps, but not very large; two died, one on the twelfth, and one on the nineteenth day, the other four survived. Some of the same scrapings, not treated with the salicylic acid, was inoculated into two other rabbits.[2] Both animals were affected about as those last described, and one died on the sixth day; but as this was a young rabbit, and others of the same litter died about the same time without having been experimented on at all, it is doubtful if the present death were due to the effects of the inoculation.

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[1] Case XIII. Part II., p. 690.

[2] Experiments 64–66.

[3] Experiments 62, 63. Part II., p. 691.

[4] Case XIV. Part II., p. 692.

[5] Experiments 70–72. Part II., p. 693.

[6] Experiments 67–69. Part II., pp. 692, 693.

[7] Experiments 80–82. Part II., p. 697.

Reviewing, now, these experiments with material treated with salicylic acid, it will be seen that the original matters, both the specimens of diphtheritic membrane and of tongue-scrapings—varied a good deal in virulence, but that such poisonous property as they had, was scarcely affected by the thorough trituration with the acid. The only obvious effect of the salicylic acid treatment seemed to be to prevent to a certain extent the matter composing the lumps from becoming offensive, and to prevent much multiplication of bacteria in the same.

Although not bearing directly upon the matter under investigation, yet it seemed to us important to know if other and specific animal infectious matter would be equally unaffected by admixture with salicylic acid. Accordingly it occurred to us to mix vaccine lymph with a solution of salicylic acid, and then see if after such treatment the lymph would preserve its activity. In pursuance of this idea we requested Dr. Frank P. Foster to allow some bovine vaccinations to be made at his establishment after the manner indicated. He kindly consented, and vaccinations were accordingly made by Dr. W. F. Cushman and Mr. H. Lawrence, under direction of one of us (T. E. S.), as follows: Salicylic acid was dissolved in water by the help of sodic phosphate, two solutions being made, one containing the acid in the proportion of 1 to 250, and one in the proportion of 1 to 500. All being ready for the vaccination, some of the lymph to be used was mixed with each of these solutions, measure for measure, and the mixture allowed to stand for one minute before inoculation. Then both the pure lymph and the mixtures were inoculated upon the same animal.[3] The result was that the admixture of the salicylic acid had not the slightest effect upon the virulence of the lymph, just as perfect pocks forming where the mixtures had been inoculated as where the pure lymph had been used. These experiments then, so far as they went, were in harmony with those preceding.

So far, now, as regards the inoculations on the rabbit of the salicylic-treated diphtheritic membrane and tongue-scrapings, we have the fact that an admixture of the acid in overwhelming quantity (overwhelming from the point of view of its power to suspend the vital activity of bacteria), was yet almost powerless to affect the poisonous property of the matter subjected to treatment. Hence the important conclusion suggests itself that this same quality of infectiousness in the diphtheritic membrane and tongue-scrapings must be independent of the vital condition of the bacteria present in the matter.

In this connection it becomes an interesting question to review the histories of the cases from which the membranes used for inoculation were drawn, and see what relation appears between facts connected with the disease in the human subject and the disease produced in the inoculated animals. In this analysis, cases I. and II. must be disregarded, because no inoculations were made with the material derived from them upon the *muscle* of the rabbit, and there is, therefore, no means of rating the comparative virulence of such material with the membranes from the other cases which were all used for muscle-inoculations. Taking, then, the other twelve cases, and studying the results of inoculation of the solid membrane or unfiltered aqueous infusion of the same in the thighs of rabbits, the membranes may be rated as follows in order of inoculable virulence, beginning with the most active: V., X., VIII., III., XIII., VI., VII., XI., IX., XIV.. XII., IV.

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[1] Experiments 85-90. Part II., pp. 698, 699.

[2] Experiments 83, 84. Part II., p. 698.

[3] Experiment 138. Part II., p. 710.

Studying, now, the cases in this order the following points become manifest: I. *There is no relation between inoculable virulence of a membrane and the time after detachment that has elapsed before the material is used for inoculation.* For, of the two membranes heading the list for virulence, one (case V.) was used on the very day of detachment, and the other (case X.) not until three days old and already beginning to putrefy. On the other hand the membrane that proved the least virulent of all (case IV.) was used the day after detachment, and among the feebly virulent (case XIV.) the membrane was three days old. II. *There is no relation between inoculable virulence of a membane and the quantity of bacteria present in the same.* For, bacteria were abundant among both the most and least virulent of the membranes, and on the other hand the membrane third on the list for virulence (case VIII.) contained very few bacteria. III. *There is a rough relation between inoculable virulence on the part of the membrane and the severity of the original disease in the human subject, so far as this can be estimated by the issue of the case in death or recovery.* For, taking the cases in the order of inoculable virulence of the membranes as given above, the terminations of the cases in death or recovery read thus: *Death*, *recovery*, *death*, *death*, *death*, *recovery*, *death*, *death*, *unknown*, *recovery*, *recovery*, *recovery.*

Besides the foregoing work, we had proposed for ourselves many other experiments and observations, notably the making of careful post-mortem examinations on human subjects dead of diphtheria, and the sanitary inspection of houses where many cases of the disease had occurred. Whenever opportunity offered we followed out our intentions in these regards, but during the period covered by the investigations these opportunities, in spite of our best efforts, were so few, that the desultory observations made are not numerous enough to generalize from. Other laboratory experiments were also planned and begun. These looked to the treatment of infectious matters by various chemical and physical agents, with a view of determining the nature of the poisonous principle by observing how the infectious quality might be affected by such treatment. But the investigations had to be brought to a close before enough of these later experiments had been made to draw conclusions from.

The results of our investigations may therefore be summed up as follows:

I. Inoculation of diphtheritic membrane into the muscular tissue of the rabbit produces severe local lesions, and even constitutional disturbance and death. But these effects differ so in their pathology and clinical history from diphtheria in the human subject, that there is no warrant for defining them as diphtheria, or for applying conclusions drawn from observation of this inoculation-disease in the rabbit to the case of diphtheria in man.

II. Effects exactly similar to the foregoing and of equal severity can moreover be produced by inoculation of a material not only non-diphtheritic, but non-infectious to the human subject under conditions where diphtheritic membrane *is* infectious, *i. e.*, when brought into contact with the mucous membrane of the mouth and throat. The material referred to is the pulpy scraping of the upper surface of the healthy human tongue.

III. Effects generally similar to the foregoing, though not of equal intensity, can furthermore be produced by inoculation of a putrescent matter which is not even of immediate animal origin, namely Cohn's fluid, allowed to spontaneously decompose. (Cohn's fluid is simply an aqueous solution of ammonic tartrate, potassic and calcic phosphates and magnesic sulphate.)

IV. The foregoing inoculation effects are not due to simple mechanical irritation, for inoculations of sand produce no effect whatever.

V. Thorough filtration of a proven virulent aqueous infusion of diphtheritic membrane or of putrid Cohn's fluid removes the infectious property of the same. Hence in such diphtheritic infusion the poisonous quality probably inheres in some *particulate* thing, from which it is not separable by the action of cold water.

VI. Thorough trituration of proven virulent diphtheritic membrane and tongue-scrapings with a high percentage of salicylic acid fails not only to remove, but even markedly to modify, the intensity of the infectious quality of those substances. Hence, since salicylic acid in even a minute percentage is capable of permanently suspending the vital activity of bacteria, the inference is that the infectious quality of diphtheritic membrane upon the system of the rabbit is not correlated to the vital activity of the bacteria present in such membrane.

VII. If, as is not improbable, the noxious principle in diphtheritic membrane which produces in rabbits the effects described, be the same with or even analogous to the principle which produces diphtheria in man by direct infection, then the conclusion of VI. will apply to the infectious quality of such membrane in its relation to the reproduction of diphtheria in the human subject. If this be the case, it follows as an important practical corollary that *there is no theoretical ground for assuming that preventing the bacteria of a diphtheritic patch from making their way through the underlying mucous membrane will, per se, prevent general diphtheritic infection of the system.*

VIII. There is no relation between inoculable virulence of a diphtheritic membrane and the period, within three days, that has elapsed between the detachment of the membrane and the inoculation with the same, nor between inoculable virulence and gross amount of bacteria present in the membrane.

IX. There is a rough relation between inoculable virulence of a diphtheritic membrane and the severity of the original case of diphtheria, so far as this can be estimated by the termination of the case in death or recovery.

But it must be distinctly understood that these nine propositions are not put forth as *proven*, but merely as the results of our experiments and observations so far as the latter go, stated in abstract form. Before the propositions can be considered proved as truths, a large number of corroborative experiments will have to be made.

PART II.—RECORD OF EXPERIMENTS.

I.—INOCULATIONS WITH DIPHTHERITIC MATTER.

Case I.

March 29, 1875, received from Dr. Harwood Wakeman a piece of diphtheritic membrane, wrapped in damp cotton, and this encased in rubber tissue. Accompanying was the following memorandum: "Fresh at 4 P. M.; has been pretty well soaked with an application to the throat of the child of diluted muriatic acid ; child four years old ; sixth day since first appearance of membrane." Not stated whether removed from living throat or post-mortem. The specimen, on soaking a bit in glycerine, and examining microscopically, showed a general infiltration with minute punctate bodies over the surface, and, imbedded in the substance, spheroid collections entirely composed of such bodies closely packed (nests or balls of bacteria).

Twenty-four hours after removal the following inoculations were made, the animals being young rabbits of the same litter.

a. Inoculation of cornea with pure membrane.

Experiment 1 :

March 29, 1875. Right cornea of a rabbit pricked and scratched in many places with a clean needle, and a piece of diphtheritic membrane thoroughly rubbed into the wounds. Piece finally left in cul de sac of upper lid. Left eye similarly scratched, but no inoculation made.

March 30. Left eye, punctures healing, without irritation. Right eye, lids glued with catarrhal secretion, forming thick crusts on the outside. On opening lids, points of puncture cloudy and elevated. General catarrhal conjunctivitis, but no thickening of the conjunctiva nor appearance of a diphtheritic patch.

March 31. Left eye, punctures healing. Right eye, catarrhal secretion less, but gray points of infiltration at punctures are perhaps slightly more distinct, with some general corneal haziness in that neighborhood. Animal feeds well, and is lively.

April 1. All the morbid symptoms subsiding.

b. Inoculation of cornea with aqueous infusion of membrane.

Experiment 2 :

March 29, 1875. A small piece of membrane was thoroughly triturated with *f* ʒ ij of cold water, and steeped in the same for half an hour. Both corneæ of a rabbit were then inoculated with the infusion in the manner described above.

March 30. Right eye, punctures apparently healing, without irritation. Left eye, points of puncture cloudy ; general conjunctivitis, but less than in Experiment 1.

March 31. Right eye healing. Left eye, general improvement.

c. Inoculation of cornea with aqueous infusion of membrane, boiled.

Experiment 3 :

March 29, 1875. A little of the foregoing infusion was boiled in a test tube for five minutes, and then allowed to cool. Both corneæ of a rabbit were inoculated with the same, when cold.

March 30. Both eyes healing, without irritation.

March 31. Both eyes nearly well.

Case II.

April 4, 1875, received from Dr. J. Lewis Smith the trachea, bronchi, spleen and kidneys of a child supposed to have died of diphtheria twenty-four hours previous. The tissues seemed well preserved and had no bad smell. The mucous membrane of the trachea and bronchi was reddened, but there was no appearance of a membrane. The child from whom the specimens were taken had a moderate inflammation of the glands of the neck. On the third day there was a catarrhal discharge from the nostrils, and an epistaxis. A trace of albumen appeared in the urine, and the child died on the sixth day.

a. Inoculation of cornea and conjunctiva with reddened mucous membrane of trachea.

Experiment 4:

April 4, 1875. Inoculated right cornea of a rabbit, with the scrapings of the reddened trachea; in left eye, a piece of the conjunctiva was snipped out, and a piece of the mucous membrane inserted in the wound.

April 5. Right eye, hardly any reaction. Left eye, considerable conjunctival inflammation.

April 6. Right eye almost well; left eye, conjunctivitis diminishing, but the piece of mucous membrane is still in situ, and appears to be firmly imbedded in the conjunctiva. No constitutional disturbance.

April 7. Right eye well; left eye, conjunctivitis subsiding; piece still in situ; rabbit doing well.

b. Inoculation of cornea with kidney-tissue.

Experiment 5:

April 4, 1875. Right cornea of a rabbit inoculated with a piece of the kidney.

April 5. A good deal of keratitis.

April 6. Keratitis increased. Rabbit does not feed as well as usual. The keratitis is limited to a small area, ¼ by ⅛ inch, and the cornea is quite opaque.

April 7. Rabbit eating better. Corneal redness diminishing, opacity as before. Removed with forceps as much matter as could be gotten off the cornea, some of the epithelium coming off with it. There was a slight layer of fibrine on the surface, and the epithelial cells contained numbers of brownish granules.

April 8. No increase in inflammation. Conjunctivitis and keratitis subsiding. Opacity as before. Rabbit's condition good.

April 10. Rabbit well.

CASE III.

April 13, 1875, received from Dr. Horace T. Hanks a piece of diphtheritic membrane of soft consistence and grayish yellow color, taken from the tonsils of a girl four years old. About April 1, patient was taken with loss of appetite and high fever. April 4, she was first seen by Dr. H. and a membrane was then observed on the tonsils—later it appeared in the nares. It became detached on the sixth day of the disease, but symptoms of blood poisoning set in and the child died on the seventeenth day. There had been no obstruction of the larynx or paralysis.

a. Inoculation of cornea with pure membrane.

Experiment 6:

April 13, 1875. Both corneæ of a rabbit inoculated with the pure diphtheritic membrane.

April 14. Slight keratitis and conjunctivitis only.

April 15. Eyes improving.

April 17. Eyes nearly well.

Experiment 7:

April 13, 1875. Same procedure as foregoing.

April 14, 15, 17. Results same as in foregoing.

b. Inoculation of muscular tissue with pure membrane.

Experiment 8:

April 13, 1875. Muscular tissue of both thighs of a rabbit inoculated with pieces of pure membrane. (For method of these and all subsequent inoculations into the muscular tissue, see ante, Part I.)

April 14. No reaction of any moment.

April 15. Died about forty-five hours after the inoculation. *Autopsy* twenty-seven hours later: Serous infiltration of the subcutaneous connective tissue over the thighs as far back as the lumbar vertebræ; isolated patches of the same over the abdomen as high as the foreshoulder. *Right thigh:* Both the aponeurosis and muscular substance of the entire thigh closely stippled with small ecchymoses. On vertical section through inoculation site, find a grayish-white patch about equal in size to the original inoculated material; this, under the microscope, is found to be composed of cellular bodies undergoing fatty degeneration, much free granular matter and a few bacteria. Around the muscle wound the tissues were reddened and ecchymosed, and there was much serum in the intermuscular connective tissue. The muscle-substance adjoining the wound when compared with that of a *non*-inoculated rabbit that died at about the same time was found in no wise different, both were undergoing post-mortem changes; the striæ were still well marked, and a few bacteria were found in both cases, but most numerous in the tissue from the non-inoculated animal. Considerable infiltration of the muscular fibres with fine oil-drops became apparent after three hours soaking in glycerine. The appearances in the *left thigh* were in all respects similar to those in the right. The *blood* drawn from the right ventricle of the heart contained a few small rod-bacteria, but far fewer than the blood of the non-inoculated rabbit already mentioned. The *liver* contained small echinococcus cysts. The *kidneys* were carefully examined for bacteria, fresh, and after soaking pieces in caustic potassa. No bacteria were found nor any appearances different from what obtained in the kidney of the non-inoculated rabbit.

c. Inoculation of cornea with aqueous infusion of diphtheritic membrane.

Experiment 9:

April 13, 1875. Both corneæ of a rabbit were inoculated with an aqueous infusion of the membrane.

April 14. No result of any consequence.

April 15. Same condition.

April 17. Nearly well.

d. Inoculation of muscular tissue with boiled aqueous infusion of diphtheritic membrane.

Experiment 10:

April 13, 1875. Similar procedure to foregoing with the infusion after boiling and cooling.

April 14, 15, 16. Results as in foregoing.

e. Inoculation of muscular tissue with filtered aqueous infusion of diphtheritic membrane.

Experiment 11:

April 13, 1875. Thigh of rabbit inoculated with the unboiled infusion after filtering through one thickness of filtering paper.

April 14, 15, and 17. Results as in foregoing.

CASE IV.

April 14, 1875, received from Dr. Horace T. Hanks another piece of membrane taken the night before from the nares of a girl three years old. The child was taken with an acute nasal catarrh, and on the second or third day this membrane formed in the nares. It became detached a day or two later and the child recovered in a week without having had any alarming symptoms. The specimen was not firm and tough like genuine diphtheritic membrane, but soft and glutinous. Under the microscope it was seen to be composed of leucocytes and granular matter held together by tough mucus.

a. Inoculation of cornea and muscular tissue with pure membrane.

Experiment 12:

April 14, 1875. Both corneæ and one thigh of a rabbit were inoculated with the pure membrane. No obvious effect was produced.

Experiment 13:

April 14, 1875. Same procedure and same result as foregoing.

b. Inoculation of cornea and muscular tissue with aqueous infusion of pure membrane.

Experiment 14:

April 14, 1875. Both corneæ and one thigh of a rabbit were inoculated with an aqueous infusion made by triturating in one fluid ounce of water a piece of the membrane about 1/8-inch square. No recognizable effect followed.

c. Inoculation of cornea and muscular tissue with aqueous infusion of membrane, boiled.

Experiment 15:

April 14, 1875. Both corneæ and one thigh were inoculated with the foregoing infusion after it had been boiled for three minutes. No recognizable effect followed.

d. Inoculation of cornea and muscular tissue with aqueous infusion of membrane. filtered.

Experiment 16:

April 14, 1875. Both corneæ and one thigh were inoculated with the infusion of "*b*" after filtration through a single thickness of filtering paper. Death forty-five hours later. *Autopsy:* Small whitish spot in the muscular substance at the site of the thigh inoculation; striæ obliterated in the circumjacent muscular fibres, and numerous rows of fat globules developed. After soaking the fibres in 10 per cent. caustic potassa for twenty-four hours, the sarcous matter and fat globules both wholly disappeared. Nothing abnormal to be found in any other part of the body. Corneæ entirely healed. (N B.—This animal was one of a litter of young rabbits, others of which, not subjected to experimentation, died at about the same time.)

CASE V.

April 23, 1875, received from Dr. George W. Rachel a piece of diphtheritic membrane removed the same day, and wrapped in moist rag and enveloped in rubber tissue. The case was that of a boy three and a half years old, whom Dr. Rachel first saw on the third day of his illness. The fauces and nasal cavity were then almost wholly covered by a membrane, and the urine was albuminous. Difficulty of breathing began on the seventh day and continued till death, which took place four days later. The patient became finally comatose, and the temperature reached as high a figure as 106.25.° Others in the same family were attacked by the disease, and there were other cases still in the neighborhood. The specimen of membrane as received was apparently in excellent preservation; it contained bacteria.

a. Inoculation of muscular tissue with pure membrane.

Experiment 17:

April 23, 1875. Both thighs of a rabbit inoculated with the pure membrane.

April 25. Dead forty-five hours after inoculation. *Autopsy.—Left thigh:* Skin wound closed, but attached to the inner surface of the skin at this point was a small yellowish mass about the size of a No. 8 bird-shot. At the point of inoculation in the muscle was a yellowish mass spread out beneath the muscle sheath. The muscular tissue itself was mottled red and white, but there was no extensive inflammatory change in the adjacent parts. *Right thigh:* Skin wound closed. Over the whole hinder half of the back and belly the subcutaneous tissue was infiltrated with serum, and unnaturately adherent to the skin and sheaths of the muscles. The muscles and their sheaths were stippled with numerous ecchymoses. Track between the skin and muscle-wounds was filled with a yellowish pasty material. This, under the microscope, was found to consist of the elements of connective tissue stuffed with leucocytes with a little granular matter. No recognizable bacteria. The same matter from the right thigh was essentially similar in composition. *Blood* from the right ventricle contained numbers of rod shaped bacteria. *Trachea* showed post-mortem congestion, but no signs of a membrane. *Kidneys* normal; no signs of bacteria.

Experiment 18:

April 23, 1875. Both thighs inoculated with pure membrane, as in the foregoing experiment.

April 25. Death between thirty and forty hours after inoculation. *Autopsy.—Left thigh:* Skin wound closed. At point of inoculation was a yellowish white mass, partly upon the surface of the muscle, and partly infiltrating the substance of the same, the overlying tissues adherent to one another and to the skin. The muscle itself, at the point of inoculation, was not much affected, but further away it was spotted with ecchymoses, and there was a large ecchymosis, one-half inch in diameter, on the back. *Right thigh:* Appearances generally similar, but less inflammation in the connective tissue, though more in the muscular. *Blood* from the right heart full of rod-bacteria, and the corpuscles much changed. Many of them had become adherent, forming irregular masses. *Kidneys* not congested. *Trachea:* Unnaturally red, but no membrane had formed. Microscopically, the yellow material from the sites of inoculation consisted of connective tissue stuffed with leucocytes and granular matter.

Experiment 19:

April 23, 1875. Both thighs inoculated with pure membrane, as in the two foregoing experiments.

April 25. Dead between thirty and forty hours after inoculation. *Autopsy:* Skin-wounds closed on both sides. Subcutaneous connective tissue of thighs much thickened, and of a mottled yellow, red and white color. Small collections of yellow material at points of inoculation, and the adjacent muscular tissue much reddened. Appearances generally similar to those in Experiment 17.

CASE VI.

May 2, 1875, received again from Dr. George W. Rachel a piece of diphtheritic membrane. The patient was a girl, two years old, sister to the patient of Case V. She was taken with vomiting, fever, and drowsiness, and on the following day, membrane formed upon the left tonsil and pharyngeal wall. It was detached the same day by forceps. No albumen in the urine, larynx not obstructed, recovery after four days' illness. The specimen was several days old when received. It was found to be made up of a meshwork of the mycelium of a fungus stuffed with masses or "balls" of closely-packed bacteria, comparatively few leucocytes, a little fibrin, and a considerable quantity of large fat globules. After treatment with an alkali, the balls of seemingly spherical bacteria disappeared, and the field became crowded with rod-forms, free.

a. Inoculation of muscular tissue with pure membrane.

Experiment 20:

May 2, 1875. Both thighs of rabbit inoculated with pure membrane.

May 3. Animal apparently well in the morning, but towards evening became languid and refused food.

May 4. Found dead. *Autopsy*, at least fifteen hours after death: No extensive local lesions on either side. The piece of inoculated membrane had disintegrated, its leucocytes were undergoing fatty degeneration, and the compressed bacteria-balls had disappeared, giving place to a general infiltration of free rod-bacteria. Very little disturbance in the muscular tissue at the point of inoculation. *Blood* contained an abundance of rod-bacteria and granular matter, the latter dissolving on addition of caustic potassa solution. *Kidneys* contained bacteria. (N. B.—It will be remembered that this examination was at least fifteen hours after the death of the animal.)

Experiment 21:

May 2, 1875. Both thighs inoculated with pure membrane, as in the foregoing.

May 4. A vein in the ear was pricked, and the blood examined microscopically for bacteria, but none were found.

May 19. Animal's general condition pretty good. A lump could be felt under the skin at the point of inoculation on the right side. The skin was snipped, and the parts beneath inspected. The lump was a collection of yellowish-white material about the size of a pea; it had no connection with the skin-wound, which was healed. The material of this lump was found to consist of connective tissue stuffed with leucocytes, with a few large corpuscles containing good-sized oil-drops, a very moderate number of free rod-bacteria, and some granular matter. The substance had no offensive odor.

May 23. Found dead.

May 24. *Autopsy.—Right thigh:* The lump described above had diminished in size. Its substance was of the same composition, except that the bacteria had almost wholly disappeared. No new appearances since previous examination. *Left thigh:* Long, narrow collection of yellow material in the subcutaneous connective tissue, one-half inch long by one-tenth inch wide; consists of enormous numbers of closely-packed fat-globules of various sizes, with a few corpuscles, themselves stuffed with oil-drops. No bacteria. Site of inoculation in the muscle could not be found. Skin-wound healed, and no hyperæmia or infiltration of tissues adjoining the adventitious mass. *Blood* from right and left hearts free from bacteria. *Internal organs* all apparently healthy.

Experiment 22:

May 2, 1875. Both thighs inoculated with pure membrane, as in foregoing.

May 21. Dead. *Autopsy:* Body greatly emaciated. *Left thigh:* Circular, thin layer of yellow material, ¼ inch in diameter, closely adherent to the outer surface of the aponeurosis of the muscle; material pulpy, and found to consist of leucocytes in an advanced stage of fatty degeneration, with a good deal of free oil-drops of various sizes. Beneath the aponeurosis, immediately under this layer, was a linear yellow streak about ⅛-inch long, found to be almost entirely made up of closely packed minute oil-drops of various sizes. *Right thigh:* Yellow layer similar to above, but smaller, in the deep connective-tissue. In neither of these patches were there any bacteria, nor was there on either thigh any serous infiltration or hyperæmia of any of the tissues. *Blood* contained no bacteria. *Internal organs* apparently healthy.

Experiment 23:

May 2, 1875. Both thighs inoculated with pure membrane, as in foregoing.

May 7. Lump felt at point of inoculation on left side; movable with the skin, and seemed to be about the size of a pea. On exposing the parts, a small, round, white, semi-solid mass, the size of a pea, was found lying in the loose subcutaneous tissue, over the thigh. The connective tissue immediately surrounding the mass was slightly thickened and reddened, forming a sort of capsule, but was not adherent to the aponeurosis of the muscle beneath. The mass was carefully dissected out, and bodily removed. No lesion of the aponeurosis of the muscle or of the muscle itself beneath the site of the tumor could be found. The material composing the tumor consisted of closely packed leucocytes undergoing fatty degeneration, free granular matter, free fat-globules, and a moderate number of rod-bacteria in active motion. No "ball" or "nests" of bacteria.

May 24. Animal somewhat poorly, but no lumps.

July 10. Animal still living, but in poor condition.

Experiment 24:

May 2, 1875. Right thigh only inoculated with pure membrane, as in foregoing.

June 10. Found dead. *Autopsy:* Body greatly emaciated. In inoculated side a small yellow mass ¼x⅛ inch in diameter; circumjacent skin and connective tissue thickened and reddened. Tumor composed of connective-tissue elements swollen and infiltrated with oil-globules. Wound of inoculation in the muscle wholly healed. *Blood* contained a very few rod-bacteria. *Lungs* normal. *Liver* moderately fatty. *Kidneys* showed a moderate number of small bodies apparently possessed of independent motion, and possibly bacteria.

CASE VII.

May 21, 1875, received from Dr. Lewis W. Oakley, of Elizabeth, N. J., a piece of diphtheritic membrane detached from the throat of a child eight years old on the sixth day of the disease. When first seen, both tonsils, the uvula and most of the soft palate were already covered by membrane. There was no albumen in the urine, no marked symptoms of laryngeal obstruction, but decided and constant signs of constitutional infection. The case terminated in death fifteen days after it was first seen by the physician. The specimen of membrane was two days old when the following inoculations were made with it:

a. Inoculation of the muscular tissue with pure membrane.

Experiment 25:

May 21, 1875. Both thighs of a rabbit inoculated with the pure membrane.

May 22. Animal well.

June 8. Animal thin, but lively. The skin wound on the *right side* presented a small ulcer with puffy red sides. At site of inoculation a lump the size of a large pea could be felt. The skin was snipped, the yellow tumor pricked, and the exuding pasty matter examined. It consisted of degenerating leucocytes, granular débris, and a moderate number of dumb-bell-shaped bodies in dancing motion, apparently bacteria. *Left side :* No lump felt. The skin was snipped and the parts beneath inspected. A shred of slightly thickened and yellowish connective tissue was found attached to the inner surface of the skin wound, and reaching toward the muscle. It was about a quarter of an inch long, and was found to consist of connective tissue elements stuffed with large oval sacs crowded with air-globules; no leucocytes; no bacteria.

June 13. Dead. *Autopsy.—Right thigh :* At site of inoculation, a cylindrical yellow mass connecting the skin and muscle-wounds, and ending in an enlargement the size of a hazel-nut; it consisted of a connective tissue wall, with soft, yellowish-white contents. The latter material was composed as above described, except that the bacteria had disappeared. *Left thigh :* Same appearance as at previous examination. *Lungs*, *liver*, *spleen*, and *larynx* normal. *Kidneys* rather congested. Body greatly emaciated.

Experiment 26 :

May 21, 1875. Both thighs inoculated with pure membrane, as in foregoing.

May 22. Animal well.

June 8. Animal well. Both thighs presented lumps the size of a bean. That on the left thigh was pricked and the matter examined; it consisted of degenerating leucocytes and granular débris.

June 21. Found dead in the morning.

June 22. *Autopsy :* Body in good condition; fur sleek and clean. *Right thigh :* Yellow mass the size of a bean joining the skin and muscle-wounds, composed of fatty and granular leucocytes. *Left thigh :* Yellow mass extending from skin-wound into and through a thin thigh muscle, and communicating with a large lobulated yellow mass $\frac{5}{8}$-inch long by $\frac{3}{8}$-inch wide and deep, situated in the lax intra-muscular tissue. The material of this mass consisted of connective-tissue elements, densely infiltrated with fat granules, and the usual granular leucocytes. Only here and there, in the matter from either thigh, could a motionless rod-bacterium be seen.

Experiment 27 :

May 21, 1875. Both thighs inoculated with pure membrane, as in foregoing.

May 22. Animal well.

May 28. Skin of right thigh was snipped and parts inspected. Yellowish-white mass connecting skin and muscle wounds. On opening, contents fluid, consisting of leucocytes, some free bacteria, and others collected into large masses.

June 8. Lump still to be felt on right side as big as a bean. Pricked, yielded yellow, pasty matter composed of closely packed leucocytes in good preservation, granular debris; few bacteria.

June 24. Animal in good condition; cord-like thickening only to be felt; not opened.

July 7. Animal in good condition.

b. Hypodermic injection of aqueous infusion of pure membrane after filtration through a porous clay cylinder.

A piece of the membrane weighing six grains was cut up fine, thoroughly triturated with two fluid drachms of distilled water, and allowed to steep for twenty-four hours. The infusion was then poured into a clay cylinder, such as come for use in galvanic batteries. The closed end of this cylinder was covered with a rubber cap, by which communication was made with an exhausting syringe. By exhausting the air by means of the syringe, the fluid was drawn through the cylinder to the extent of eleven minims. This filtrate was perfectly clear; and, examined microscopically, proved wholly free from bacteria or any kind of solid particles.

Experiment 28:

May 22, 1875. Three minims of above clear filtrate injected hypodermically into left thigh of a rabbit.

May 28. Animal in excellent condition; not the slightest sign of a lump to be felt.

June 26. Excellent condition; there has been no development of a lump.

July 10. Excellent condition; never any sign of a lump.

Experiment 29:

May 22, 1875. Four minims of above clear filtrate injected hypodermically into right thigh of a rabbit.

May 28. Excellent condition; no sign of a lump.

July 10. Excellent condition; there has been no lump.

Experiment 30:

May 22, 1875. Four minims of above clear filtrate injected hypodermically into left thigh of a rabbit.

May 28. Excellent condition; no sign of a lump.

July 4. Dying.

July 5. Dead. *Autopsy:* Not the slightest indication of there having ever been any effect produced at the site of the injection. Death probably from some other cause. Many animals died during the warm weather without having been experimented upon.

c. Hypodermic injection of unfiltered aqueous infusion of pure membrane.

The residue of the infusion used to obtain the filtrate above mentioned, was allowed to stand till the larger particles had settled. The turbid supernatant fluid, examined microscopically, was found to contain small broken fragments of diphtheritic membrane, and to be swarming with actively moving bacteria.

Experiment 31:

May 22, 1875. Four minims of the above turbid infusion injected hypodermically into left thigh of a rabbit.

May 28. Animal has been sickly. Lump the size of a pea felt at site of injection. Skin opened, and yellow tumor found adhering to the superficial fascia. It was pricked, and the pasty contents examined microscopically: found to consist of leucocytes and granular débris, with very few bacteria.

June 26. Animal in excellent condition. The lump seems to have diminished in size.

July 10. Animal in excellent condition.

Experiment 32 :

May 22, 1875. Four minims of turbid infusion injected in right thigh of rabbit.

May 28. Animal in good condition ; lump felt under skin.

June 8. Lump, size of a large pea, felt freely movable under skin at site of injection. Skin snipped ; tumor pricked, and yellow contents examined. Consisted of leucocytes in good preservation, and granular débris ; only an occasional bacterium. Lump left in place. Animal in good condition, though badly bitten by mate.

July 1. Lump increased to size of an almond-kernel. Pricked, and contents examined, consisted of corpuscles undergoing fatty and granular degeneration. No bacteria.

July 10. Animal in good condition. Lump shrunk to size of a split pea.

Experiment 33 :

May 22, 1875. Five minims of turbid infusion injected into left thigh of a rabbit.

May 28. Animal in good condition ; lump felt under skin. Skin snipped, and parts explored. A yellow patch, half an inch long, and a quarter wide, found in the superficial fascia. When cut into, it proved tenacious and elastic ; no matter could be squeezed from the cut surface. Material found to consist of connective tissue, stuffed with granular matter, a moderate number of leucocytes and cells full of oil-globules. A very limited number only of bacteria could be found.

July 1. Animal in fair condition ; has been shedding his hair. Lump felt to have shrunk considerably in size.

July 10. Animal in good condition.

CASE VIII.

May 29, 1875, received from Dr. A. S. Church, a piece of diphtheritic membrane, detached from the throat of a patient, on the sixth day of the disease. The patient, a boy nine years old, was taken with a chill, followed by fever. The next day, membrane was found on the tonsils ; on the following day, on the uvula also, and the day after that, also, in the nares. The larynx did not become obstructed, but there was constitutional infection, and the patient died on the ninth day of the disease. The specimen was examined and used two days after it was received, being in the mean time kept wrapped in a damp cloth, protected by rubber tissue. It was found to consist of a fibrinous exudation containing a moderate number of leucocytes, multitudes of oil-globules, with very few bacteria.

a. Inoculation of muscular tissue with pure membrane.

Experiment 34 :

May 31, 1875. Both thighs of a rabbit inoculated with the pure membrane.

June 26. Animal in good condition. *Right thigh :* a small lump. *Left thigh :* small open abscess, discharging freely. Matter found to consist of normal pus, with only a small amount of granular matter, and an occasional bacterium.

July 8. In good condition.

Experiment 35 :

May 31, 1875. Both thighs inoculated with the pure membrane.

June 7. Animal died during forenoon. *Autopsy* at 2 P. M.—*Right side :* At site of skin-wound a scab ¾ inch in diameter closely adherent to underlying tissues. On exposing the subcutaneous tissue a flat layer of yellow material was found reaching half down the thigh, backwards over the rump, and upwards to the median line of the back where it met a similar exudation from the opposite side. This plaque was quite closely adherent to the skin. The muscle at the site of inoculation was gangrenous over an area ½ inch by ⅛. Adjacent to this area the muscle was mottled red and yellow, and at one point a sharply defined yellow line of demarcation separated the diseased from the healthy muscular tissue. Microscopic examination showed the material of the yellow plaque to consist of a fibrinous meshwork, containing numerous deformed corpuscles about the size of leucocytes and a large quantity of granular matter. The yellow spots in the muscular tissue contained oil-globules and smaller granules strung together, so as to give the appearance of dumb-bells or chains. *Liver* large and containing echinococcus cysts. *Kidneys* swollen, soft ; tube-cells inclined to be fatty. In the débris were similar chains and figures-of-eight to those seen in the muscular tissue. *Blood* contained a few of the same elements. *Lungs* normal.

Experiment 36:

May 31, 1875. Both thighs inoculated with pure membrane.

June 4. Dead 96 hours after inoculation. *Autopsy.—Left thigh :* Yellow patch ¼ inch in diameter in subcutaneous connective tissue. Surrounding this, a white streak extending to the median line of the back. Beyond this again, a general reddening of the tissues for the space of half an inch, and considerable serous infiltration. Thigh itself, mottled with red spots. Material of yellow patch found to consist of fibrous network holding leucocytes, abundance of granular matter and a few motionless bacteria. What looked like balls of bacteria found in the blood-vessels in the muscular tissue at the site of inoculation. *Right thigh :* Small yellow patch overlying muscle-wound, with surrounding serous infiltration of the subcutaneous connective tissue. The muscle-wound was lined with a dirty, friable, yellowish-white material, and the muscular tissue below was transformed into a soft, cheesy matter, found to consist of muscular fibres in advanced fatty degeneration, with here and there a motionless bacterium. For an area an inch in diameter around this affected spot the muscular tissue was reddened. *Liver* and *kidneys* rather red and swollen. *Blood* contained no bacteria.

b. Hypodermic injection of aqueous infusion of pure membrane after filtration through porous clay.

A piece of the membrane was triturated with water, infused for twenty-four hours and then filtered through a porous clay cylinder in the manner described in "*b*" case VII. (see ante, p. 681). The filtrate was perfectly clear and free from solid elements.

Experiment 37 :

June 1, 1875. Five minims of the clear filtrate injected into each thigh of a rabbit.

June 5. Animal in excellent health and fat. Skin snipped at site of each injection and parts beneath thoroughly explored. Not the slightest sign of any lesion, nor even hyperæmia.

June 8. Died during the night. *Autopsy:* No lesion whatever discoverable. Was a young animal, and death was probably unconnected with the experimentation.

Experiment 38:

June 1, 1875. Six minims of the clear filtrate injected into each thigh of a rabbit.

June 5. Animal in excellent condition. Examination made as in foregoing, but nothing whatever found.

June 11. Animal got out of his cage and fell a considerable height, breaking his leg.

June 12. Died about noon. *Autopsy* two hours later: Body in excellent condition. No lesions whatever to be found at sites of the injections. *Larynx*, *lungs*, *liver*, normal. *Blood* from right heart contains no bacteria. Death was probably due to injury from the fall.

c. Hypodermic injection of unfiltered aqueous infusion of pure membrane.

The residue of the infusion used to obtain the filtrate of "*b*" was allowed to stand till the larger particles settled; the turbid supernatant fluid was then taken for the injection.

Experiment 39:

June 1, 1875. Six minims of the turbid infusion injected into the right thigh, and eight into the left, of a rabbit.

June 3. Died in convulsions at 3.30 P. M., about forty-eight hours after the injection. *Autopsy* half an hour later.—*Right thigh:* General serous infiltration of connective tissue, area of thickened connective tissue two inches in diameter, inclosing a yellow patch ⅝ by ¾ of an inch in area. Interior of this patch was semi-fluid yellow matter made up of granular matter, and great numbers of dumb-bell and rod-shaped bodies looking like degenerate bacteria, but not in motion. Underneath this patch the aponeurosis of the muscle was cloudy and thickened, but the muscle itself was not affected. *Left thigh:* No patch, but intense congestion of the tissues over the thigh and of the muscle itself to the depth of ⅛ inch with great serous infiltration of the subcutaneous connective tissue. *Liver* large, smooth, and congested. *Kidneys* congested. *Lungs*, *larynx*, and *heart*, normal. *Blood* from right ventricle contains no bacteria.

Experiment 40:

June 1, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 4. Dead. *Autopsy:* Subcutaneous connective tissue over whole aspect of both thighs intensely congested, and skin unnaturally adherent. Where the injection had been delivered the connective tissue was infiltrated with specks of yellow material, found to be composed of débris of corpuscles and innumerable ordinary rod-bacteria. The appearance suggested that these specks were the solid portions of the original infusion as injected. Extensive serous infiltration over buttocks and between the muscles of the thighs. Aponeuroses, and muscles themselves, for the depth of two lines, and over an area of an inch and a half in diameter, intensely congested. *Blood* of both sides of the heart contained moderate number of minute rod-bacteria.

Case IX.

June 2, 1875, received from Dr. Harvey S. Gay a fine, fresh specimen of diphtheritic membrane, one-eighth of an inch thick. It was composed of fibrinous material containing few, if any, leucocytes, multitudes of minute oil-globules, but no actively moving bacteria.

No history of the case was furnished.

a. Inoculation of muscular tissue with pure membrane.

Experiment 41 :

June 2, 1875. Both thighs of a rabbit inoculated with the pure membrane.

July 1. Lump on each side as big as a filbert. That on the left side has ulcerated and is discharging yellow matter. The material of both composed of leucocytes, granular matter and a few rod-shaped and ball-headed bacteria.

July 10. Animal in excellent condition.

b. Hypodermic injection of aqueous infusion of pure membrane after filtration through porous clay.

An aqueous infusion of the membrane was made and filtered the same day through the porous clay cylinder. (See ante, page 681.) The filtrate was perfectly clear.

Experiment 42 :

June 2, 1875. Five minims of the clear filtrate injected into the right thigh, and four minims into the left, of a rabbit.

June 22. Animal somewhat thin but healthy ; fur clean ; feeding well ; no lumps to be felt.

June 29. Found dead.

June 30. *Autopsy :* Body in good condition. No sign of a lesion discoverable. (N. B.—The weather has been intensely hot.)

Experiment 43 :

June 2, 1875. Six minims of the clear filtrate injected into the right thigh, and five into the left, of a rabbit.

June 22. Animal somewhat thin but healthy ; no lumps to be felt in either thigh.

July 10. Animal in good condition.

c. Hypodermic injection of unfiltered aqueous infusion of pure membrane.

The turbid infusion of "*b*," after the heavier particles had settled, was used for the injections.

Experiment 44 :

June 2, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 26. Animal in good condition. On each side, a lobulated hard lump, as big as a filbert, apparently not connected with the muscular tissue. Pricked, a yellowish white curdy matter exuded, found to be composed of coarsely granular leucocytes, granular matter and rod-bacteria.

July 10. Animal in good condition.

Experiment 45:

June 2, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 5. Animal died during night. *Autopsy.—Right thigh:* General congestion of connective tissue and aponeurosis of thigh-muscles, with presence of extensive clots of blood, apparently from injury to a vessel by the hypodermic needle. At one spot, a circle of yellow infiltration of the connective tissue half an inch in diameter. Through the aponeurosis underlying this patch, a small hole could be traced, and on exposing the muscle beneath, the latter presented a ring of yellow infiltration corresponding in position with that of the patch in the connective tissue above, in the centre of which was a grayish, sloughing cavity. Apparently, the needle had forced the muscular tissue. The yellow infiltration of the tissues contained abundant leucocytes and living rod-bacteria, and the gray pultaceous muscular slough was composed of muscular tissue undergoing fatty degeneration, and swarming with living rod-bacteria. *Left thigh:* Appearance the same except that there was no lesion of the muscle. *Blood*, from both sides of the heart, contained no bacteria.

d. Hypodermic injection of aqueous infusion of pure membrane ten days old and putrid.

The unfiltered infusion of "*c*" was allowed to stand for ten days. Evaporation was compensated for by adding two fluid drachms of distilled water. The infusion was now thoroughly putrid, being a turbid brown fluid, having an extremely offensive smell, and swarming with actively moving bacteria.

Experiment 46:

June 12, 1875. Six minims of the putrid infusion injected into each thigh of a rabbit.

June 13. Found dead on the floor, having escaped from its cage and fallen a considerable height. *Autopsy:* Body limp; hind legs have an offensive smell, but not the fore-legs. *Left thigh:* No lesion except faint pinkish discoloration in connective tissue at site of injection A bit of the lax connective tissue examined microscopically, appeared normal, except that there were numerous rod-bacteria to be seen. *Right thigh:* Same condition, bacteria far more numerous. *Liver:* Large clot on under surface; organ passively congested. *Kidneys:* Congested. *Blood* of right heart fluid and containing an exceedingly small number of minute rod-bacteria.

Experiment 47:

June 12, 1875. Six minims of the putrid infusion injected into each thigh of a rabbit.

July 10. Animal in good condition. Skin snipped over both thighs and parts explored. *Right thigh:* Small flattened sac, about ⅜-inch in diameter, covered with newly formed vessels, found in the subcutaneous connective tissue. Sac when opened, found to contain about a drop of soft yellowish material, composed of leucocytes, flattened corpuscles stuffed with oil-globules, and an immense amount of free oil-globules aggregated together here and there into chains. No bacteria. *Left thigh:* Appearances same, but more free oil and a few motionless rod-bacteria.

e. Hypodermic injection of putrid infusion of pure membrane, after filtration through paper (single filter).

The putrid infusion of "*d*" was filtered through a single ordinary paper filter. The filtrate was clear, but of a yellow color, foul smelling, and contained a few actively-moving bacteria in each microscopic field.

Experiment 48:

June 12, 1875. Six minims of the filtrate injected into each fore leg of a rabbit.
June 24. Animal in excellent condition; no lump to be felt in either leg.
July 10. Animal in excellent condition.

Experiment 49:

June 12, 1875. Six minims injected into each thigh of a rabbit.
July 10. Animal in excellent condition. No lump to be felt in either thigh.

f. Hypodermic injection of putrid infusion after boiling.

Some of the putrid infusion of "*d*" was boiled in a test-tube for three minutes and allowed to cool. All the contained bacteria were then motionless.

Experiment 50:

June 12, 1875. Six minims of the boiled infusion injected into each thigh of a rabbit.
June 18. Found dead. *Autopsy:* Body emaciated. *Right thigh:* Small, rather thick, patch, one-third by one-eighth inch in area, in the connective tissue at site of injection. Material composed of large flattened corpuscles filled with oil-globules and granules, but no bacteria; the muscle beneath in a state of fatty degeneration. *Left thigh:* Soft, yellow patch in connective tissue at sight of injection, the size of a three-cent piece. Composition same as above.

Experiment 51:

June 12, 1875. Six minims of the boiled infusion injected into each thigh of a rabbit.
June 29. Found dead. No autopsy.

CASE X.

June 5, 1875, received from Dr. W. H. Vermilye a piece of diphtheritic membrane detached by coughing on the seventh day of the disease. The patient, a girl six years old, was attacked with what at first seemed to be a simple follicular tonsillitis. On the sixth day the tonsils, palate, and pharynx became covered with a thick exudation, which peeled from the palate quite easily, leaving a bleeding surface behind. The next day the same surfaces became again covered, but thinly and in patches. Some of these patches were pulled upon and loosened, and immediately afterward the sample furnished was detached and discharged by expectoration. The patient had already begun to improve, and without having had any symptoms of laryngeal obstruction or of constitutional infection, made a good recovery after two weeks illness. Albumen was detected in the urine on the twelfth day, but the urine was not examined regularly, the patient being a dispensary case. Two sisters of the patient were also attacked, but with them the disease was of even a milder type. The specimen was received wrapped in moist rag, encased in oiled silk. It was not opened till the second day after receipt. It was then yellowish-red, soft, and pultaceous, and had a putrid smell. Microscopically, it was found to consist of corpuscles of various forms matted together and infiltrated with dense masses of bacteria, which swarmed in the field as free rods of various sizes.

a. Hypodermic injection of aqueous infusion of pure membrane.

Eighteen grains weight of the membrane was ground up with three fluid drachms of water and infused one hour. The turbid, supernatant fluid, after settlement of the larger pieces of membrane, was used for the injections. It had no smell.

Experiment 52:

June 7, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 10. Died in the previous night. *Autopsy* in the afternoon: Subcutaneous connective tissue over whole region of each thigh hyperæmic, œdematous, and diffusely yellow. Yellow spots, composed of connective-tissue densely stuffed with bacteria in closely-packed masses. Swarms of bacteria, both dumb-bell and rod forms, actively moving about in the field of the microscope. *Blood*, of right heart, contained no bacteria. *Kidneys:* Tubes contained a great deal of fat in small granules. In the free fluid were numerous bodies, in pretty active motion, resembling bacteria. *Spleen:* Normal. *Liver:* Quite fatty.

Experiment 53:

June 7, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 10. Died in the afternoon. *Autopsy* immediately: Both thighs in same condition in all respects as foregoing, only the yellow matter in this case contained, in addition to the elements above described, many leucocytes in a state of degeneration. *Blood* from right heart contained no bacteria. *Liver:* Cells slightly fatty. *Kidneys:* Tubes normal; no bacteria.

Experiment 54:

June 7, 1875. Six minims of the turbid infusion injected into each thigh of a rabbit.

June 10. Died during previous night. *Autopsy* in the afternoon.—*Right thigh:* Skin at site of injection gangrenous for an area as large as a three-cent piece; great infiltration of subcutaneous connective tissue. Muscular tissue for an area two inches in diameter reddened by small punctate spots; the tissue at these spots found to consist of broken down muscular fibres, but with no bacteria present. *Left thigh:* Appearances similar, except in addition a thin, yellow patch in the subcutaneous connective tissue, found to consist of connective-tissue elements, with leucocytes, large cells containing oil-globules and vast numbers of bacteria in active motion. Bacteria were also found among the muscular fibres in the affected spots in the muscle. *Blood* from right heart contained a moderate number of bacteria. *Kidneys:* Normal, but fluid scrapings from a cut surface contained a large number of free bacteria. *Liver:* Large and fatty. *Spleen:* Normal.

b. Hypodermic injection of aqueous infusion of pure membrane after filtration through paper (double filter).

The infusion of "*a*" was filtered through a double filter of ordinary filtering-paper, made by inserting one filter within another, so that four thicknesses of paper were everywhere presented to the fluid. The filtrate was clear and odorless, but of a yellow color.

Experiment 55 :

June 7, 1875. Six minims of the clear filtrate injected into each thigh of a rabbit.

July 1. No sign of a lump to be felt on either thigh ; no adhesion of skin to parts beneath ; animal fat and healthy.

July 10. Animal in good condition.

Experiment 56 :

June 7, 1875. Six minims of the clear filtrate injected into each thigh of a rabbit.

July 1. No sign of a lump to be felt on either thigh. Animal in excellent condition.

July 10. Animal in good condition.

Experiment 57 :

June 7, 1875. Six minims of the clear filtrate injected into each thigh of a rabbit.

July 1. Animal thin, but apparently healthy. *Right thigh :* No lump to be felt. *Left thigh :* Large lump, the size of a pullet's egg. Pricked, was found to contain the usual yellow creamy matter, composed of malformed leucocytes, granular matter, with some moving bacteria.

July 10. Animal in good condition.

CASE XI.

June 19, 1875, received from Dr. Alexander Buchanan a small scrap of membraniform material taken from the throat of a scarlet fever patient, on the ninth day of the disease. The patient, a boy six years old, was first seen by Dr. B. on the eighth day of the disease. The pulse was then 188, temperature 104° Fahr. ; there was enormous swelling of the parotids, and from the tonsils upwards to the posterior nares the mucous membrane was covered with exudation. The small piece furnished was removed the next day. Patient died on the fourteenth day, having from the first refused all nourishment. The specimen of membrane was about 1-16 inch thick, greenish yellow in color, and so friable as to be easily broken into pieces. Microscopically, the material was composed, in greatest part, of the thalli and spores of a fungus, apparently penicilium glaucum. Rod-bacteria and deformed, flattened corpuscles, probably lymphoid cells, were also present in considerable number. There was only enough of the material for the inoculation of two animals.

a. Inoculation of muscular tissue with membrane from scarlet fever patient.

Experiment 58:

June 20, 1875. Both thighs of a rabbit inoculated with the solid membrane.

July 4. Dying. *Right thigh* showed a small lump, containing cheesy material, as in cases where pure diphtheritic membrane was inoculated.

Experiment 59:

June 20, 1875. Both thighs of a rabbit inoculated with the solid membrane.

July 10. Animal in good condition, but somewhat thin. *Left thigh:* Small lobulated yellow tumor in the connective tissue, at the site of injection. Mass composed of deformed leucocytes, large, flat corpuscles, containing fat and granular débris. No rod-bacteria. *Right thigh:* No lump to be felt.

CASE XII.

June 19, 1875, received from Dr. A. S. Church a second piece of diphtheritic membrane. The patient, a boy sixteen months old, was taken with fever and convulsions. Dr. C. saw him first on the third day, and membrane was then already present upon the tonsils and uvula. It subsequently appeared in the nose. Small pieces were detached on the sixth day, and larger ones on the ninth. There was no obstruction of the larynx, but there were constitutional symptoms, with albumen, and granular and blood-casts in the urine. Recovered, after three weeks' illness. The specimen furnished was a broad, leathery strip, over two inches long, nearly an inch wide, and from 1-16 to 1-8 inch thick. It was made up of a distinctly fibrillated network, with flattened corpuscles, containing oil-drops. Numerous bacteria were also present.

a. Inoculation of muscular tissue with pure membrane.

Experiment 60:

June 20, 1875. Both thighs of a rabbit inoculated with pure membrane.

June 26. Animal thin, but healthy. No lumps to be felt at sites of inoculation.

July 10. Animal in good condition.

Experiment 61:

June 20, 1875. Both thighs of a rabbit inoculated with pure membrane.

June 26. Animal thin, but healthy. No lumps to be felt.

July 8. Killed by a fall from a considerable height.

July 9. *Autopsy.—Left thigh:* Small lump. *Right thigh:* Nothing to be found.

CASE XIII.

January 21, 1876, received from Dr. Francis H. Weismann a piece of diphtheritic membrane, coughed up by a patient on the sixth day of the disease. The patient, a boy eleven years old, was taken with slight chills and cough, followed by swelling of the glands and high fever. On the fourth day membrane formed in the throat, involving the cavity of the mouth and extending into the larynx, producing obstruction to breathing. Pieces were first coughed up on the sixth day, and from time to time many large pieces were thus detached. The prognosis was bad from the first, the urine being slightly albuminous and constitutional symptoms present. A small cut on the finger became covered with membrane. Paralysis was already beginning in the right fore-arm when the patient died, on the fourteenth day of the disease. Others of the same family were beginning to show symptoms of diphtheria when this boy died. The specimen of membrane was examined two days after detachment. It was then firm, tenacious, of a yellowish-white color, and was made up principally of the interlacing filaments of the mycelium of a fungus. There were also numerous minute spherical bodies, but no rod-bacteria.

a. Inoculation of muscular tissue with pure membrane.

Experiment 62:

January 22, 1876. Both thighs of a rabbit inoculated with the pure membrane.

January 25. Found dead in the morning. Animal had partly succeeded in getting out of his cage.

January 26. *Autopsy* in the afternoon.—*Right thigh:* Spreading from site of inoculation, a diffuse inflammation, the subcutaneous connective-tissue being infiltrated with yellow pasty material, and the veins of the region congested. The appearances, in short, were the same as have been so often noted, only the lesions were not severe. The yellow material was composed of swollen, distorted corpuscles, with granular débris. *Left thigh:* Diffuse inflammation of connective-tissue, and fatty degeneration of the muscle at site of inoculation. The strings of fat granules between the muscular fibres looked much like round bacteria, but many were too large, and others were dissolved by even a weak solution of caustic potash. *Viscera* normal.

Experiment 63:

January 22, 1876. Both thighs of a rabbit inoculated with pure membrane.

January 24. Found dead in the morning. *Autopsy:* Microscopic appearances same as in foregoing case. No microscopic examination made.

b. Inoculation of muscular tissue with mixture of pure membrane and salicylic acid.

Fourteen grains weight of the membrane was triturated with fourteen drops of water, containing in solution two per cent. of salicylic acid and six per cent. of sodic phosphate. Next, five grains weight of salicylic acid itself was added, and the whole mixture thoroughly triturated in a mortar for half an hour.

Experiment 64:

January 22, 1876. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

January 26. Animal in good condition.

January 29. Animal in good condition.

February 22. Killed in a fight with another rabbit. There were lumps found at the site of inoculation.

Experiment 65 :

January 22, 1876. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

January 29. Animal in good condition.

February 22. Animal in good condition.

February 25. Animal in good condition.

March 11. Animal in very good condition. Very small lumps to be felt on both sides at sites of inoculation.

Experiment 66 :

January 22, 1876. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

January 26. Animal in good condition.

February 23. Animal in good condition. Small lumps to be felt on both sides at sites of inoculation.

March 11. Animal in fair condition, though rather thin. Lumps still to be felt.

CASE XIV.

February 25, 1876, received from Dr. William E. Bullard two pieces of diphtheritic membrane. The patient, a boy six years old, had had enlarged tonsils for some weeks. Next, the whole pharyngeal surface became very red, and the following day membrane formed upon both tonsils, uvula, and anterior nares. Four days later much of the membrane came away, leaving the left nostril and one of the tonsils free. At this date the temperature was high, the pulse irregular, and the prostration great. But, in six days more, all signs of membrane had disappeared, and the patient recovered after an illness, in all, of thirteen days. A sister of this boy was in the fourth day of an attack of diphtheria when he himself first fell ill. The larger specimen of membrane was about one-eighth inch thick, soft, friable, and of a grayish-yellow color. It consisted of a fibrillated matrix containing large numbers of corpuscles of various sizes, and also numerous bacteria. The smaller specimen was still more distinctly fibrillated; contained large numbers of granules, but few bacteria.

a. *Inoculation of muscular tissue with pure membrane.*

Experiment 67 :

February 25, 1876. Both thighs of a rabbit inoculated with pure membrane.

February 28. Animal in good condition.

March 11. Ulcers at sites of inoculation, discharging freely. Animal fat, and seemingly in good condition.

Experiment 68 :

February 25, 1876. Both thighs of a rabbit inoculated with the pure membrane.

February 28. Animal in good condition.

March 11. Animal very weak but has good appetite. Open ulcers at sites of inoculation, discharging freely an offensive matter.

March 19. Dead. *Autopsy:* Body greatly emaciated. Abscesses over both thighs, extending into the muscular tissue; contents consisting of pus-corpuscles, large granular corpuscles and granular matter, but no bacteria.

Experiment 69:

February 25, 1876. Both thighs inoculated with pure membrane.

February 28. Animal in good condition.

March 11. Animal thin, but pretty active. Coat rather dirty and rough. Ulcers at sites of inoculation discharging freely an offensive matter.

June 13. Animal in good condition. Ulcers healed; no lumps or thickening to be felt.

b. Inoculation of muscular tissue with mixture of pure membrane and salicylic acid.

Seven grains weight of membrane was treated first with salicylic acid solution, and then with the solid acid in exactly the same manner and proportion described in the last case. (See ante, page 691.)

Experiment 70:

February 25, 1876. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

February 28. Animal in good condition.

February 29. Found dead at 3 P. M.

March 2. *Autopsy:* Moderate sized collections of yellow material at sites of inoculation in the muscles, but not much inflammation of surrounding tissues.

Experiment 71:

February 25, 1876. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

February 28. In good condition.

March 11. Found dead. *Autopsy.—Left thigh:* Large patch at site of inoculation; matter pasty in consistence and of a rather reddish tinge. Considerable inflammation of surrounding tissues. Internal organs apparently healthy. Body much emaciated.

Experiment 72:

February 25, 1875. Both thighs of a rabbit inoculated with the mixture of membrane and salicylic acid.

February 28. Animal in good condition.

March 11. Large lumps on both sides at sites of inoculation. Had begun to ulcerate and discharge externally. Contents white, creamy and almost odorless.

II.—INOCULATION OF SCRAPINGS FROM THE HEALTHY HUMAN TONGUE.

a. Inoculation of muscular tissue with pure tongue-scrapings.

The upper surface of a healthy human tongue with an habitual tendency to be "furred," was thoroughly scraped with a knife. The pulpy yellowish-white scrapings consisted of the ends of the filiform papillæ covered by epithelium, with the latter in turn densely covered and infiltrated with packed layers of bacteria. The scrapings were used at once for inoculation.

Experiment 73:

April 29, 1875. One thigh of a rabbit inoculated with fresh tongue-scrapings.

May 3. Dead. *Autopsy:* Large lump of dirty yellow color at site of inoculation; material containing free bacteria and also round balls or nests of cloudy packed bacteria exactly similar to those seen in diphtheritic membrane. *Blood* contained only a few bacteria.

Experiment 74:

April 29, 1875. Both thighs of a rabbit inoculated with fresh tongue-scrapings.

May 4. No effect observed.

May 7. Lump felt at site of inoculation on one side. Skin snipped and parts explored. A flattened yellow tumor, the size and shape of a kidney-bean, found in the connective-tissue, immediately over the muscle-wound. By pricking its thickened wall of connective-tissue, a white pasty substance was obtained, found to consist of broken down leucocytes, some rod-bacteria and an immense amount of granular matter. No balls of bacteria were to be seen. Tumor left in situ.

May 17. Very considerable general swelling of thigh and leg on the left side, and fluctuation detected over this whole area as far, even, as the toes. Animal evidently sickly.

May 24. Dead. *Autopsy.—Right thigh:* An extensive cavity, whose contents had been discharged by ulceration, found under the skin, extending over the whole area of the thigh. The skin itself formed the outer wall of the sac, and internally the muscles and periosteum had disintegrated so as to expose nearly the whole length of the femur, and part of the ilium, denuded, at the bottom of the sac. *Left thigh:* A large livid, flattened, fluctuating tumor, covering the whole area of the thigh and leg, and reaching to the toes. Tumor consisted of a wall of thickened connective-tissue enclosing a dirty, yellowish, semi-fluid material, consisting of deformed leucocytes, granular matter, and large numbers of actively moving bacteria. Examination of *abdomen* showed general peritonitis, loops of intestine being adherent to the abdominal wall and to each other by fresh, moderately firm, adhesions. *Liver:* Deeply congested, and containing echinococcus ova. *Lungs:* Deeply congested. *Blood:* From right heart, vena cava, and from lungs, liver, and kidney contained a moderate number of rod-bacteria of larger size than common, but none of these elements were found in blood taken from the left heart.

Experiment 75:

April 29, 1875. Both thighs of a rabbit inoculated with fresh tongue-scrapings.

May 4. Animal ing ood condition; small lumps to be felt at each site of inoculation. Pricked, and contents found to be a yellow pasty material, composed of broken down leucocytes, granular matter, actively moving rod-bacteria, and balls of closely-packed bacteria.

May 7. Appearances same in all respects, but in addition there are open ulcers at the sites of the skin-wounds.

May 12. Dead. Body considerably emaciated. The lumps have increased a good deal in size.

b. Inoculation of muscular tissue with pure tongue-scrapings.

Tongue-scrapings obtained in the same way as in "*a*," but twenty-four hours after removal, were used for the following inoculations. The material had already acquired an offensive smell.

Experiment 76:

May 6, 1875. Both thighs of a rabbit inoculated with pure tongue-scrapings.

May 7. Skin over right thigh snipped and parts explored. Oblong yellow tumor, one inch long by three-eighths of an inch wide, found connecting the skin and muscle-wounds. On opening the tumor, the contents were found to be a yellow pasty material, made up of leucocytes and enormous multitudes of bacteria. Dèbris of the inoculated material could also be found in the mass. The entire tumor, walls and all, was carefully dissected out and bodily removed.

June 24. Animal in good condition. No lumps to be felt in either thigh.

July 10. Animal in good condition.

Experiment 77:

May 6, 1875. Both thighs of a rabbit inoculated with pure tongue-scrapings.

May 9. Skin of right thigh snipped and parts explored. Skin-wound closed; yellow oblong tumor connecting skin and muscle-wounds; contents white and semi-fluid containing myriads of bacteria. A drop of blood, obtained by pricking a vein in the ear, showed no bacteria.

May 25. Dead. *Autopsy.—Right thigh:* The above-mentioned tumor found to measure one inch by one-eighth inch in area; material consisted of leucocytes undergoing fatty degeneration, and a great deal of free fat in globules, but no bacteria were now to be seen. *Left thigh:* The whole muscular tissue was infiltrated with distinct collections of yellow, semi-fluid material, consisting of leucocytes undergoing fatty degeneration, and a moderate number of rod-bacteria, the latter being most numerous in the foci nearest the skin-wound. *Blood* contained no bacteria.

Experiment 78:

May 6, 1875. Both thighs of a rabbit inoculated with pure tongue-scrapings.

May 10. Skin of left side snipped and parts explored. Yellowish-white tumor an inch long connecting skin and muscle-wounds; contents, leucocytes undergoing fatty degeneration and a moderate number of free bacteria. No "balls" of bacteria.

May 19 Collections of yellowish matter in both thighs which have ulcerated externally and have been discharging. Site of ulcers now covered by scabs. Discharged matter consisted of moderate number of leucocytes and abundant and active bacteria.

May 31. Dead.

June 1. *Autopsy.—Left thigh:* Multilocular tumor in the subcutaneous connective-tissue, as large as a large filbert; not attached to the aponeurosis of the muscle, nor could the muscle wound be found. Contents of tumor white and semi-fluid, consisting of leucocytes undergoing degeneration, granular débris, and shreds of disorganized connective-tissue containing large numbers of minute bacteria. *Right thigh:* Presented nothing abnormal except a slight thickening of the connective-tissue immediately underlying the skin at the site of the original wound. The *visceral* cavities and organs were healthy. *Blood:* From both sides of the heart showed crenation of the red corpuscles, and a massing of the white into groups of from six to thirty. No more bacteria observable than is usual in the blood of animals thirty hours dead.

Experiment 79:

May 6, 1875. Both thighs of a rabbit inoculated with pure tongue-scrapings.

May 10. Animal sick.

May 11. Dead. *Autopsy* between 12 and 17 hours after death.—*Left thigh:* Large flat collection of white pasty material in the subcutaneous connective-tissue, an inch in diameter; material composed of granular leucocytes, free granules and rod-bacteria in considerable number. At site of muscle-wound the muscular tissue showed close lines of white glistening aspect running parallel to the direction of the muscular fibres. These consisted of the sarcolemma of muscular fibres filled with closely packed granular débris in place of the usual sarcous substance. Brightly shining spherical bodies (too glistening for bacteria) of varying size, occasionally arranged in rows, also appeared scattered in the sarcous substance of the muscular fibres near these streaks of white. *Right thigh:* Large diffuse collection of yellowish-white material of irregular shape, measuring three by one-and-a-half inches in area, in the subcutaneous connective-tissue. This patch was attached to the skin and the muscle at the sites of the original wounds in the same. Material composed of connective-tissue elements infiltrated with degenerating leucocytes and enormous numbers of bacteria. The cavity of the muscle-wound contained a dirty pasty substance in small quantity, consisting of broken down muscular débris and closely packed masses of bacteria. Around this spot were white streaks similar to those above described as found in the other thigh. *Blood:* From a vein in the neighborhood of the muscle-wound showed no bacteria, but that from the right heart contained bacteria. There were general *pericarditis*, *peritonitis*, and inflammation of the tunica vaginalis of the *testicles* with fibrinous friable soft exudation, composed of a fibrinous network in whose meshes were myriads of bacteria.

c. *Inoculation of muscular tissue with mixture of tongue-scrapings and salicylic acid.*

Six grains' weight of pulpy tongue-scrapings, three hours after removal, was thoroughly triturated with one grain of Squibb's unbleached salicylic acid.

Experiment 80:

May 28, 1875. Both thighs of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

June 4. Animal extremely emaciated and dull. Thick lump on each side at sites of inoculation. Pricked, exuded yellow semi-fluid matter consisting of granular leucocytes, granular débris, and a few *motionless* rod-bacteria.

June 5. Dead. By a mistake the body was thrown away before an *autopsy* was made.

Experiment 81:

May 28, 1875. Both thighs of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

June 4. Animal in fine condition. Skin of right thigh snipped and parts explored. Large thick lump an inch long and half an inch wide. Contents pulpy, consisting of very granular leucocytes, but no bacteria. On left side a smaller thickening could be felt under the scab of the skin-wound. Pricked, exuded pulpy yellow matter, consisting of granular leucocytes, and a very small number of *motionless* bacteria.

June 13. Dead. *Autopsy* four hours after death: Animal had been in good condition though somewhat thin; fur in good order. *Left thigh:* Yellow tumor over two inches long and half an inch thick and wide, connecting the skin and muscle-wounds; thickest over muscle-wound; composition same as found June 4; no bacteria. No signs of circumjacent serous infiltration or congestion. *Right thigh:* Exactly the same condition of things; the tumor was nearly two inches long, and half an inch wide and thick. *Blood* of right ventricle contained a very few club-shaped bacteria, motionless. The red globules in many instances were beset with processes projecting radially and having exactly the appearance of short rod-bacteria. But on adding water these processes became pale like the rest of the substance of the corpuscle, and as the latter swelled under the action of the water these processes were rapidly retracted, till they disappeared wholly, leaving the usual smooth, round contour to the swollen corpuscle.

Experiment 82:

May 28, 1875. Both thighs of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

June 4. Animal in fine condition. Thick lump felt on each side. Pricked, exuded yellow semi-fluid matter containing leucocytes and granular débris, but no bacteria.

June 22. Animal in fine general condition. On the right side the lump is as large as a pigeon's egg. On squeezing, a yellowish material exuded from under the scab covering the skin-wound. Contained granular leucocytes and débris, but no bacteria.

July 10. Animal in excellent condition.

d. Inoculation of muscular tissue with putrefying tongue-scrapings.

The scrapings of five successive mornings were mixed as obtained, and used for inoculation on the fifth day. The mixed material had acquired a horribly offensive smell.

Experiment 83:

January 4, 1876. Both thighs of a rabbit inoculated with the fœtid tongue-scrapings.

January 10. Lumps felt on both sides.

January 13. The lumps have ulcerated externally; discharging freely an extremely foul, offensive matter. Animal not as lively as others, but fat, and fur in good condition.

January 26. Animal in good condition.

February 22. Killed in a fight with another rabbit. *Autopsy:* Large collection of the usual matter at sites of inoculation, but no lesion of any internal organs.

Experiment 84:

January 4, 1876. Both thighs of a small rabbit inoculated with the fœtid tongue-scrapings.

January 10. Dead. *Autopsy:* On both sides the usual lumps of yellow material. (N. B.—This rabbit was one of a litter of six small animals under three months of age, two of which, not experimented upon at all, died about the same time from unknown causes.)

e. Inoculation of muscular tissue with mixtures of putrefying tongue-scrapings and salicylic acid.

Fourteen grains' weight of the fœtid tongue-scrapings of "*d*" was treated with salicylic acid solution, and then with the solid acid in exactly the same manner as the diphtheritic matter in series "*b*," Case XIII. (see ante, page 691). After mixture with the salicylic acid the excessively offensive odor of the stale tongue-scrapings almost wholly disappeared.

Experiment 85:

January 4, 1876. Both fore-shoulders of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Animal in good condition. Lumps the size of a large marble on each side.

January 13. Lumps as large as a filbert on each side. Skin-wound scabbed over. On detaching the scab the contents of the lump were exposed and were found to consist of the usual yellowish pasty material. Animal in good health.

January 16. Animal in good condition.

March 11. Animal in good condition and fat. Ulcers have healed.

April 18. Animal perfectly well.

Experiment 86:

January 4, 1876. Both fore-shoulders of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Lumps on both sides the size of a large marble. Animal in good condition.

January 13. Animal in good condition. Lumps the size of a filbert, and discharging matter externally.

January 26. Animal in good health, but paralyzed.

March 11. Animal perfectly well. Ulcers healing.

Experiment 87:

January 4, 1876. Both fore-shoulders of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Condition and lumps same as the two foregoing.

January 13. Lumps the size of a small marble; yellowish pasty matter exuding from under scab over skin-wound.

January 26. Animal in good condition.

February 23. Animal in good condition.

March 11. No marks of ulceration; animal fat and in good health.

Experiment 88:

January 4, 1876. Both thighs inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Animal lively and in good condition; small lumps on both sides.

January 13. Same condition as the others.

January 26. Animal in good condition.

February 20. Killed in a fight with another rabbit.

Experiment 89:

January 4, 1876. Both thighs inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Small lumps on each thigh.

January 13. Small lumps on both sides. Skin-wounds scabbed; yellowish material easily squeezed out from under scabs.

January 23. Dead. No autopsy.

Experiment 90:

January 4, 1876. Both thighs of a rabbit inoculated with the mixture of tongue-scrapings and salicylic acid.

January 10. Small lumps, but with boundaries not very well defined, on both sides.

January 13. Large scabs at site of skin-wounds; yellow creamy matter exuding from under the scabs of nearly as offensive odor as in Experiment 83.

January 16. Dead. No autopsy.

III.—INOCULATIONS OF DECOMPOSED COHN'S SOLUTION.

a. Inoculation of muscular tissue with sediment from bottle of decomposed Cohn's solution.

A large bottle of Cohn's solution[1] was prepared and allowed to spontaneously decompose. It became turbid, acquired a strong putrid smell, and deposited a thick pulpy sediment. Fluid and sediment swarmed with actively moving bacteria. The sediment was separated by straining and used for the inoculations.

Experiment 91:

May 15, 1875. Both thighs of a rabbit inoculated with the pulpy sediment from the decomposed Cohn's solution.

May 19. Skin of right thigh snipped and parts explored. Thick yellowish tumor, one-fourth inch wide, connecting skin and muscle-wounds; material composed of granular leucocytes and a moderate number of free rod-bacteria.

May 27. Right leg again explored. The yellow tumor has considerably increased in size; leucocytes undergoing fatty degeneration; bacteria very few. Left leg explored: long yellow mass of the usual character, over 1 inch long by ¼ inch wide; contents contain granular leucocytes and a very moderate number of bacteria.

June 8. The patches still to be felt from without. Skin not opened.

June 22. Left leg explored: the tumor has shrunk to a thin yellowish streak running from the site of the muscle-wounds forwards into the connective-tissue elements infiltrated with minute oil-globules. Right leg explored: Thin yellowish layer attached to inner surface of skin-wound. Site of muscle-wound not discoverable. Animal thin but otherwise seemingly healthy.

July 8. Died suddenly. *Autopsy.—Right thigh:* Small, very thin yellow deposit just under the skin. *Left thigh:* No action to be found. (N. B.—The weather at this time was intensely hot, and animals that were not experimented upon died.)

Experiment 92:

May 15, 1875. Both thighs of a rabbit inoculated with the pulpy sediment from the decomposed Cohn's solution.

June 8. Animal in excellent condition; no lumps felt. *Right leg:* Explored in the usual way; nothing near the skin-wound, but at the muscle-wound was a lobulated yellow tumor, the size of a medium-sized pea, lying in the subcutaneous connective-tissue, and connected through the original cut in the aponeurosis with the muscular substance below. Material of the tumor contained leucocytes, minute oil globules, and large sacs stuffed with the same. Only here and there an occasional motionless rod-bacterium. No inflammation or congestion about the tumor. *Left leg* explored: Flat yellow patch in the connective-tissue near skin-wound; material elastic and coherent; contains connective-tissue elements undergoing fatty degeneration, leucocytes and sacs filled with oil-globules. Only rarely a bacterium to be seen motionless. The site of the muscle-wound could not be found.

July 10. Animal in excellent condition.

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[1] Formula for Cohn's solution. Ammonic tartrate 1 gramme, potassic phosphate, magnesic sulphate, aa. 5 grammes; calcic phosphate .05 gramme, distilled water 100 c. c.

b. Hypodermic injection of lower stratum of decomposed Cohn's solution.

The supernatant fluid of a quart bottle of decomposed Cohn's solution that had stood for two months was carefully drawn off and the thick semi-fluid lowest stratum used for the injections. From four to ten minims was the quantity injected in each limb.

Experiment 93:

March 6, 1876. Both thighs injected with decomposed Cohn's solution.

April 13. Lumps on each side as big as pullet's eggs.

Experiment 94:

March 6, 1876. Both thighs injected with decomposed Cohn's solution.

March 26. Dead.

March 28. *Autopsy* 48 hours after death: Lumps on both sides; material contained leucocytes and bacteria in tolerable abundance.

Experiment 95:

March 6, 1876. Both thighs injected with decomposed Cohn's solution.

April 13. Lumps on both sides; material contained leucocytes, bacteria and granular matter.

Experiment 96:

March 6, 1876. Both thighs injected with decomposed Cohn's solution.

March 26. Lumps on both sides.

April 13. Lumps have disappeared. Animal well.

c. Hypodermic injection of decomposed Cohn's solution.

A sample of Cohn's solution was inoculated, upon making, with a few drops of old, decomposed Cohn's solution, and allowed to stand one month. It was then itself decomposed, had a putrid smell, was turbid, and swarmed with bacteria. The supernatant fluid was used for the injections, sixteen minims being injected into each limb.

Experiment 97:

April 18, 1876. Both thighs of a rabbit injected with the decomposed Cohn's solution.

April 25. Animal in fair condition; somewhat thin, and coat not so sleek as others. Perhaps small lumps, but not very distinct.

May 2. Animal in good condition. Right side lump size of pea. Left side lump size of bean. Latter pricked, exuded yellow material, containing granular and fatty leucocytes, and débris; no plainly marked bacteria.

May 9. No change.

May 22. Both lumps seemingly disappeared. Left leg explored, and yellowish thickened patch of connective-tissue found at site of wound.

June 13. Nothing to be felt.

Experiment 98:

April 18, 1876. Both thighs of a rabbit injected with the decomposed Cohn's solution.

April 25. Animal in excellent health. Apparently small lumps on both sides.

May 2. Lump on each side size of bean. Left leg explored: Material yellowish, pasty composition, as in foregoing, but more shreds of connective-tissue. Animal in good condition.

May 9. Right lump disappeared. Left, now only a small diffuse thickening.

May 22. All thickening gone.

June 13. Nothing to be felt.

Experiment 99:

April 18, 1876. Both thighs of a rabbit injected with the decomposed Cohn's solution.

April 25. Animal hearty, apparently. Small lumps in both thighs.

May 2. Animal in good condition. Right side, no lump to be felt; left side, diffuse lumpy thickening of the size and shape of a Lima bean; composition as in Experiment 97.

May 9. Lump on left side same size.

May 22. Lump on left side slightly smaller.

June 13. Lump on left side diminished to size of split pea.

Experiment 100:

April 18, 1876. Both thighs of a rabbit injected with the decomposed Cohn's solution.

April 26. Animal thin, but otherwise well. Lumps on both sides.

May 2. Left side, lump twice the size of a bean, with ulcerated and scabbed skin over area ¼ inch long by ⅛ inch wide. On lifting top of scab pasty material exuded, containing granular and fatty leucocytes and débris and swollen minute oblong bodies, possibly bacteria. Right side, lump the size of a marble, not opened. Animal thin and mangy.

May 9. Right side, lump size of bean. Left side, slight thickening only.

May 22. Right side, lump size of small pea. Left side, thickening disappeared.

June 13. Right lump also disappeared.

d. Hypodermic injection of decomposed Cohn's solution after filtration through porous clay.

Some of the same sample of Cohn's solution as was used in "*c*" was filtered through the porous clay cylinder (see ante, page 701). Two minims of fluid was obtained. This filtrate was clear, odorless, and wholly free from bacteria or other solid elements.

Experiment 101:

April 18, 1876. The two minims of clear filtrate was injected into the right side of a rabbit.

April 26. Animal in excellent condition. No sign of a lump.

May 2. Animal in fine condition. Nothing to be felt.

June 13. Same as on May 2.

e. Hypodermic injection of decomposed Cohn's solution, after filtration through many thicknesses of paper.

The same sample of Cohn's solution used in "*c*" and "*d*" was filtered through successive paper filters as follows, a fresh filter or filters being taken each time: Single, twice; double, twice; triple, once; quadruple, four times. The filtrate was faintly opalescent only, and had entirely lost the original putrid smell. It contained but a few active bacteria.

Experiment 102:

April 18, 1876. Eight minims of the filtrate injected into each thigh of a rabbit.

April 25. Animal in excellent condition. No lumps to be felt.

May 2. Same as on April 25. Left leg explored; nothing to be found.

June 13. Everything perfectly normal.

Experiment 103:

April 18, 1876. Same procedure; same history; same results as in Experiment 102.

Experiment 104:

April 18, 1876. Same procedure; same history; same results as in Experiment 102.

Experiment 105:

April 18, 1876. Same procedure; same history; same results as in Experiment 102.

f. Hypodermic injection of decomposed Cohn's solution.

A sample of Cohn's solution was inoculated with one fluid ounce of old decomposed Cohn's solution. It was used for the following injections three weeks later, was then thoroughly decomposed, smelling strongly putrid and swarming with living bacteria. Each injection was sixteen minims taken from the upper stratum of the bottle.

Experiment 106:

June 13, 1876. Both thighs injected with the decomposed Cohn's solution.

June 20. Large flat area of thickening on right side about one inch in diameter. Left side, lump the size of a bean.

June 27. The thickened patch on the right side has ulcerated; left side, no change. Animal thin and poorly.

Experiment 107:

June 13, 1876. Both thighs injected with the decomposed Cohn's solution.

June 20. Nothing to be felt on either side.

June 27. Nothing to be felt on either side.

Experiment 108:

June 13, 1876. Both thighs injected with the decomposed Cohn's solution.

June 20. Right side, very small thickening to be felt, like a string with a knot at the end. Left side, lump the size of a split pea.

June 27. Right side, thickening disappeared. Left side, lump size of a small bean.

Experiment 109:

June 30, 1876. Both thighs injected with the decomposed Cohn's solution.

June 20. Right side, considerable diffuse thickening to be felt, like a bean wrapped in cotton; left side, very little, if any thickening.

June 27. Thickening on right side disappeared; cord of thickening, like a string, developed on left side. None of the animals of this series showed any impairment of their general health.

g. Hypodermic injection of decomposed Cohn's solution after thorough aeration.

Into the nozzle of a funnel a rubber cap, pierced with a small hole, was firmly wedged. Fluid poured in the funnel thus armed escaped through the hole in the rubber plug only drop by drop, and about as fast as in ordinary filtration. Some of the same Cohn's solution used in "*f*" was then passed through this plugged funnel nine successive times. After this aeration, the solution was of course as turbid as ever, but it had entirely lost the putrid smell it originally had, a slightly mawkish odor alone remaining. Sixteen minims of this aerated solution was used in each of the following injections:

Experiment 110:

June 13, 1876. Both thighs of a rabbit injected with the aerated Cohn's solution.

June 20. Right side, nothing to be felt; left side, lump the size of a large pea.

June 27. Right side, lump size of a shot; left side, lump size of a split pea.

Experiment 111:

June 13, 1876. Both thighs of a rabbit injected with the aerated Cohn's solution.

June 20. Right side, lump size of a marble; left side, lump size of a bean.

June 27. Right side, lobular diffuse lump, size of a Lima bean; left side, slight cord-like thickening.

Experiment 112:

June 13, 1876. Both thighs of a rabbit injected with the aerated Cohn's solution.

June 20. Both sides, lumps size of a large pea.

June 27. Both sides, lumps size of a large bean.

Experiment 113:

June 13, 1876. Both thighs of a rabbit injected with the aerated Cohn's solution.

June 20. Right side, lump size of a large pea; left side, lump size of a large bean.

June 27. Both sides, lumps size of a large bean. These were pricked, and the usual yellowish creamy material exuded on pressure. None of the animals of this series suffered any impairment of their general health.

IV.—INOCULATIONS OF PUTRID INFUSION OF CALF'S LIVER.

a. Hypodermic injection of the putrid liver infusion.

Pieces of calf's liver were infused in water, and after a few days the infusion was used for experimentation. The fluid had an intensely strong putrid smell, and swarmed with living bacteria.

Experiment 114:

November 12, 1875. One thigh of a rabbit injected with the putrid infusion.

November 15. Small yellowish-white tumor found in the connective-tissue at site of injection, identical in appearance with those occurring after inoculation with diphtheritic membrane, tongue-scrapings, etc.

b. Hypodermic injection of putrid liver-infusion after filtration through porous clay.

Some of the infusion of "*a*" was drawn through the porous clay-cylinder.

Experiment 115:

November 12, 1875. One thigh of a rabbit injected with the clear filtrate (three minims).

November 15. No discoverable effect.

c. Hypodermic injection of putrid liver-infusion after filtration through paper.

Some of the infusion of "*a*" was filtered through a single paper filter, and some through a double filter, so managed that four thicknesses of paper were everywhere presented to the fluid. The filtrate in both cases showed no rod-bacteria, but multitudes of minute granules.

Experiment 116:

November 12, 1875. One thigh of a rabbit injected with the filtrate from the single filter.

November 15. No discoverable effect.

Experiment 117:

November 12, 1875. One thigh of a rabbit injected with the filtrate from the double filter.

November 15. No discoverable effect.

d. Inoculation of solid residue from putrid liver-infusion, after evaporation by boiling, and treatment with boiling absolute alcohol.

About nine fluid ounces of the unfiltered infusion was boiled continuously until it was nearly evaporated to dryness. The solid residue was then further boiled with absolute alcohol, and the alcohol then removed by filtration. The moist residue on the filter was used for inoculation in one case, and, mixed with water, for hypodermic injection, in another case.

Experiment 118:

November 12, 1875. One thigh of a rabbit inoculated with the moist residue.

November 15. Large lump at site of inoculation, of the usual character.

Experiment 119:

November 12, 1875. One thigh of a rabbit injected with the moist residue mixed with water.

November 15. Large lump, as in foregoing.

e. Hypodermic injection of alcoholic solution from residue of evaporated putrid liver-infusion.

The alcoholic filtrate of "*d*" was used for the injection.

Experiment 120:

November 12, 1875. One thigh of a rabbit injected with the alcoholic filtrate.

November 15. No discoverable effect.

V.—INOCULATIONS OF SAND.

Sand was roasted, and allowed to cool. Some was used for inoculation, dry; some, after mixing into a pulp with a little of Liebig's extract of meat.

Experiment 121:

May 15, 1875. Both thighs of a rabbit inoculated with dry sand.

May 19. Animal in good condition; nothing to be felt. Legs explored; sand found encapsuled, each grain by itself. No yellow tumor; no signs of inflammation.

May 27. Legs explored; thin line of slightly thickened connective-tissue, studded with sand particles connecting skin and muscle-wound. No yellow tumor; no leucocytes; no bacteria.

May 31. Animal perfectly well.

Experiment 122:

May 15, 1875. Same procedure, history and results as in Experiment 121.

Experiment 123:

May 15, 1875. Both thighs of a rabbit inoculated with the mixture of sand and meat extract. Subsequent history and results same as in Experiment 121.

Experiment 124:

May 15, 1875. Same procedure, history and results as in Experiment 123.

VI.—INOCULATIONS OF SALICYLIC ACID.

a. Inoculation of muscular tissue with solid salicylic acid.

Some of Squibb's unbleached salicylic acid was mixed into a paste with water, and inoculated in the usual way.

Experiment 125:

May 28, 1875. Both thighs of a rabbit inoculated with the paste of salicylic acid.

June 4. Animal in excellent condition. Skin-wounds closed by scabs, without thickening. *Left side:* A depression felt over site of muscle-wound. Skin snipped, and parts explored. No sign whatever of any lesion in the connective-tissue. The hole made by the original muscle-wound remained as an excavation ¼ inch in diameter, presenting a brown-colored surface. The material of this brown layer of tissue consisted of connective-tissue elements, blood-corpuscles, and muscular fibres in a state of unnatural stiffness, shrinkage, and brownish discoloration—an appearance similar to what is produced in muscle by the action of weak chromic acid. No sign of pus, or of irritation of tissues in the neighborhood of the muscle-wound.

July 1. Skin and muscle-wounds completely healed. Animal in good condition.

July 10. Animal in good condition.

Experiment 126:

May 28, 1875. Both thighs of a rabbit inoculated with the paste of salicylic acid.

June 4. Skin of thighs snipped and parts explored. Appearances identical with those of foregoing experiment at same date.

June 24. Animal well; nothing to be felt from without; legs not explored.

July 10. Animal in good condition.

Experiment 127:

May 28, 1875. Both thighs of a rabbit inoculated with the paste of salicylic acid.

June 4. Animal in excellent condition. No thickening to be felt, and on opening skin, no lesion in the neighborhood of the skin-wound.

June 12. Animal in excellent health.

b. Hypodermic injection of salicylic acid dissolved in aqueous solution of sodic phosphate.

The rabbits used in this and the following series of experiments were all of the same litter; small animals, weighing 1¼ pounds each.

Experiment 128:

March 12, 1875. Injected following solution: Salicylic acid, 5 grains; sodic sulphate, 15 grains; water, 25 minims. For the following two hours animal somewhat stupid and quiet; respirations quickened. No interference with any of the functions.

March 13. Animal lively, apparently as well as ever.

Experiment 129:

March 15, 1875. Injected following solution by six different punctures over back and belly: Salicylic acid, 10 grains; sodic sulphate, 30 grains; water, 100 minims. The injecting occupied seven minutes. Immediate effects generally similar to those in Experiment 128, but shock-like condition more pronounced.

March 16. Animal lively and well.

Experiment 130:

March 16, 1875. Injected into same rabbit used in Experiment 129, the following solution by three different punctures: Salicylic acid, 10 grains; sodic phosphate, 30 grains; water, 50 minims. Animal became soon quiet and dull, but in half an hour brightened somewhat. One hour after the injections, fell upon side, unable to stand. Fifteen minutes later opisthotonic convulsions set in, and for the following hour the condition remained the same.

March 17, 8 o'clock A. M. Found dead and stiff. *Autopsy* at 3.15 o'clock P. M., just twenty-four hours after the injections: Connective-tissue under skin of thorax and abdomen infiltrated with serum, striking a violet color on addition of solution of ferric chloride (a test for salicylic acid). Ecchymoses at sites of injection. On opening abdominal cavity it was found that the needle of the injecting syringe had pierced the thin wall of the abdomen and wounded the peritoneum and liver. No other lesion, traumatic or otherwise, of any abdominal or thoracic organ, nor of the central nervous system. Bladder distended with four fluid drachms of clear urine, giving deep violet color on addition of the ferric salt. Contents of small intestine and alcoholic extract of the brain also give the reaction with iron, but not the contents of the stomach, nor the cut surface of the lungs, nor blood taken from the heart.

Experiment 131:

March 17, 1875. Same procedure as in Experiment 130, care being taken not to pierce the abdominal walls. Animal quiet and dull shortly after the injections, but not seriously affected.

March 18. Animal lively and well.

Experiment 132:

March 17, 1875. Injected following solution by seven different punctures. Salicylic acid, 15 grains; sodic phosphate, 45 grains; water, 75 minims. Immediate effects similar to those of Experiment 131.

March 18. Animal lively and well.

Experiment 133:

March 19, 1875. Injected following solution by ten separate punctures. Salicylic acid, 24 grains; sodic phosphate, 72 grains; water, 160 minims. The injecting occupied half an hour. Animal after last injection quiet and dull with increased rapidity of respiration. Fifteen minutes later, fell over on side with legs rigid and head thrown back, and in seven minutes thereafter died. *Autopsy* immediately: Connective-tissue at most points of injection infiltrated with blood, with many ecchymoses in the neighborhood; coagula of a dirty reddish-brown on the edges. No lesions of any organ, traumatic or otherwise. Urine in bladder, fæces in small intestine, blood in heart, aqueous humor, alcoholic decoction of brain, all give a violet color on addition of solution of ferric chloride.

c. Hypodermic injection of simple aqueous solution of sodic phosphate, and of pure water as control experiments to the foregoing.

Experiment 134:

March 15, 1875. Injected the following solution by six separate punctures: sodic phosphate, 30 grains; water, 100 minims (same solution as in Experiment 129, only minus the salicylic acid). Results same as in Experiment 129.

Experiment 135:

March 16, 1875. Same procedure and results as in Experiment 134.

Experiment 136:

March 16, 1875. Injected by six separate punctures 100 minims of pure water. Animal quiet and dull for fifteen minutes.

March 17. Animal lively and well.

Experiment 137:

March 24, 1875. Injected the following solution by ten separate punctures: sodic phosphate, 72 grains; water 160 minims (same solution as in experiment 133 only minus the salicylic acid). Animal became immediately quiet and dull, breathing fast. Two hours later fell over on side in convulsions; legs rigid and twitching, but in seven minutes regained the feet and remained sitting quietly.

March 25 (twenty-four hours after last observation). Has eaten nothing; sits heavy and dull with eyes half closed; on pushing gently, fell over on side and pawed ineffectually to regain feet. Died quietly half an hour later.

March 26. *Autopsy:* No lesion of any organ, traumatic or otherwise, but subcutaneous connective-tissue deeply and generally infiltrated with serum.

VII.—INOCULATIONS OF SALICYLIC ACID AND VACCINE VIRUS.

Through the kindness of Dr. Frank P. Foster these inoculations were made at his establishment by Dr. W. F. Cushman and Mr. H. Lawrence, in presence of Dr. Satterthwaite. Solutions were prepared as follows: I. Salicylic acid, 1 part; distilled water, 500 parts. II. Salicylic acid, 1 part; sodic phosphate, 3 parts; distilled water, 250 parts. III. Sodic phosphate, 3 parts; distilled water, 250 parts. All being in readiness for the vaccinations, three portions of pure fresh vaccine-lymph were mixed with equal volumes of these solutions, respectively, and the mixtures allowed to stand one minute before being used for vaccination.

Experiment 138:

March 28, 1876. A heifer was inoculated as follows: At four points with pure fresh vaccine lymph; at four points with lymph mixed with solution I. (making a dilute lymph impregnated with salicylic acid in the proportion of 1 to 1,000 parts); at four points with lymph mixed with solution II. (making lymph containing salicylic acid 1 part to 500); and at five points with lymph mixed with solution III.

April 4. Fine pocks produced in two out of the four inoculations of pure lymph; in all four inoculations of lymph with salicylic acid 1 to 1,000; in all four inoculations of lymph with salicylic acid 1 to 500; and in four out of the five inoculations of lymph with simple sodic sulphate solution. In all cases the pocks produced by the adulterated lymph were as fine as those produced by the pure, and were in all respects typical vaccine pocks.

VIII.—EXPERIMENTS TO TEST THE POWER OF SALICYLIC ACID TO PREVENT THE DEVELOPMENT OF BACTERIA IN PUTREFIABLE FLUIDS.

In these experiments equal volumes of clear putrefiable fluids in test-tubes were charged with various percentages of the substances whose power was to be tested, and the tubes were then inspected from day to day, or as often as occasion permitted, and the first appearance of *cloudiness* of the contained fluid noted as a sign that bacterial development was beginning.

Experiments 139 to 175 inclusive:

March 21, 1875. Thirty-six test-tubes of Cohn's solution were charged with different proportions of salicylic acid of different makers, as in the following table. A test-tube of Cohn's solution, unadulterated, was placed among the rest. The whole were set upon a warm mantel-piece, and watched for twelve days. The lines indicate the number of days that the contents of the tubes remained clear.

Cohn's Solution and Salicylic Acid.

MARCH 21: TUBES PREPARED.		1st day after.	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th
Pure Cohn's Solution..........................		—	—	—									
Cohn's Solution + Squibb's pure S. acid,	1/10000	—	—	—									
“ “ “	1/5000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/4000	—	—	—	—								
“ “ “	1/3000	—	—	—	—	—	—	—	—	—	—	—	
“ “ “	1/2500	—	—	—	—	—	—	—	—	—	—		
“ “ “	1/2000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1500	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/500	—	—	—	—	—	—	—	—	—	—	—	—
C. Sol'n + Squibb's unbleached S. acid,	1/10000	—	—	—									
“ “ “	1/5000	—	—	—									
“ “ “	1/4000	—	—	—	—								
“ “ “	1/3000	—	—	—	—	—	—						
“ “ “	1/2500	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/2000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1500	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/500	—	—	—	—	—	—	—	—	—	—	—	—
Cohn's Solution + Schering's S. acid,	1/10000	—	—	—									
“ “ “	1/5000	—	—	—									
“ “ “	1/4000	—	—	—	—								
“ “ “	1/3000	—	—	—	—								
“ “ “	1/2500	—	—	—	—	—	—	—	—				
“ “ “	1/2000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1500	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/500	—	—	—	—	—	—	—	—	—	—	—	—
Cohn's Solution + Merck's S. acid,	1/10000	—	—	—									
“ “ “	1/5000	—	—	—									
“ “ “	1/4000	—	—	—									
“ “ “	1/3000	—	—	—	—	—	—						
“ “ “	1/2500	—	—	—	—	—	—						
“ “ “	1/2000	—	—	—	—	—	—	—					
“ “ “	1/1500	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/1000	—	—	—	—	—	—	—	—	—	—	—	—
“ “ “	1/500	—	—	—	—	—	—	—	—	—	—	—	—

Experiments 176 to 186 inclusive :

March 22, 1875. Fresh human urine was boiled, filtered, and then charged with Squibb's unbleached salicylic acid, as per table below. The test tubes were observed for eight days.

Urine and Salicylic Acid.

MARCH 22: TUBES PREPARED.	1st day after.	2d	3d	4th	5th	6th	7th	8th
Plain Urine, boiled and filtered.....	━	━	━	╸				
Urine + Salicylic acid, 1/10000	━	━	╸					
" " 1/5000	━	━	╸					
" " 1/4000	━	━	╸					
" " 1/3000	━	━	╸					
" " 1/2500	━	━	━	━	━	━	━	━
" " 1/2000	━	━	━	━	╸			
" " 1/1500	━	━	━	━	━	━	━	╸
" " 1/1000	━	━	━	━	━	━	━	━
" " 1/500	━	━	━	━	━	━	━	━

Experiments 187 to 196 inclusive :

April 29, 1875. The following aqueous solutions of Squibb's pure salicylic acid were made by the addition of a little sodic phosphate: 1 : 100, 250, 500, 750, 1,000, 1,500, 2,500, 3,000, 5,000, 10,000. Two fluid drachms of each solution were put into a test-tube, and then the test-tubes were severally inoculated with one drop each of a strong, putrid beef-decoction. The tubes were finally loosely stopped with cotton. The tubes were examined at intervals, with the following result: All the solutions weaker than 1-1500 began to turn cloudy almost immediately. The following solutions were found cloudy on the days stated respectively: 1-1500 on the 6th day, 1-1000 on the 28th; 1-750 and 1-500 were clear on the 28th day, but were found cloudy on the 74th, no observation having been made between these dates; 1-250 and 1-100 remained clear during the whole 78 days of the observation.

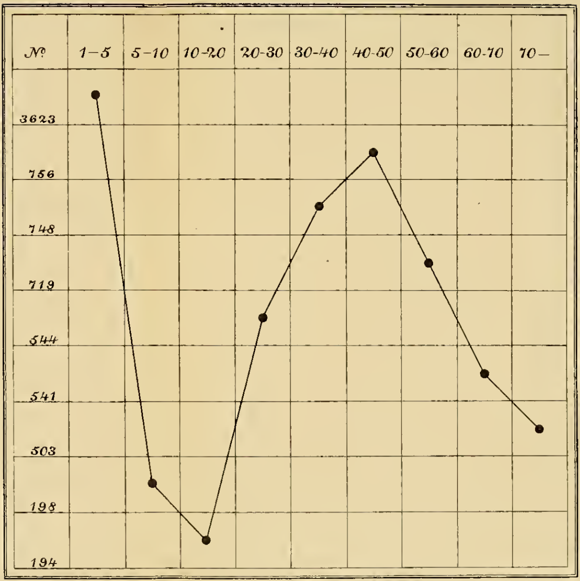
Experiments 197 to 206 inclusive :

April 29, 1875. Precisely similar experiments were made with Squibb's unbleached salicylic acid. The results were practically identical with the foregoing.

TABLE I.

NUMBER OF DEATHS AT DIFFERENT AGES

WHOLE NUMBER 7873.

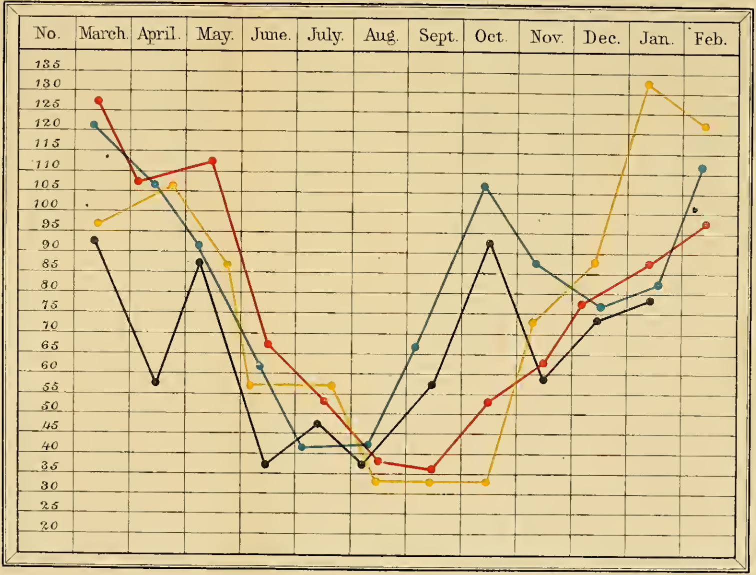


Endicott & Co Lith 57 Beekman St. N Y

TABLE II.

NUMBER OF DEATHS IN EACH MONTH IN CHILDREN UNDER 5 YEARS OLD

1871-72 IN BLACK, 826 DEATHS, 1872-73 IN RED, 915 DEATHS, 1873-74 IN BLUE 938 DEATHS
1874-75 IN YELLOW 948 DEATHS.



Endicott & Co.Lith.57 Beekman St N.Y.

TABLE III.

NUMBER OF DEATHS IN EACH MONTH IN PERSONS MORE THAN 5 YEARS OLD.

1871-72 IN BLACK, 1872-73 IN RED, 1873-74 IN BLUE, 1874-75 IN YELLOW.

IN 1871-72, 872 DEATHS, IN 1872-73, 968 DEATHS IN 1873-74, 1134 DEATHS, IN 1874-75, 1276 DEATHS.

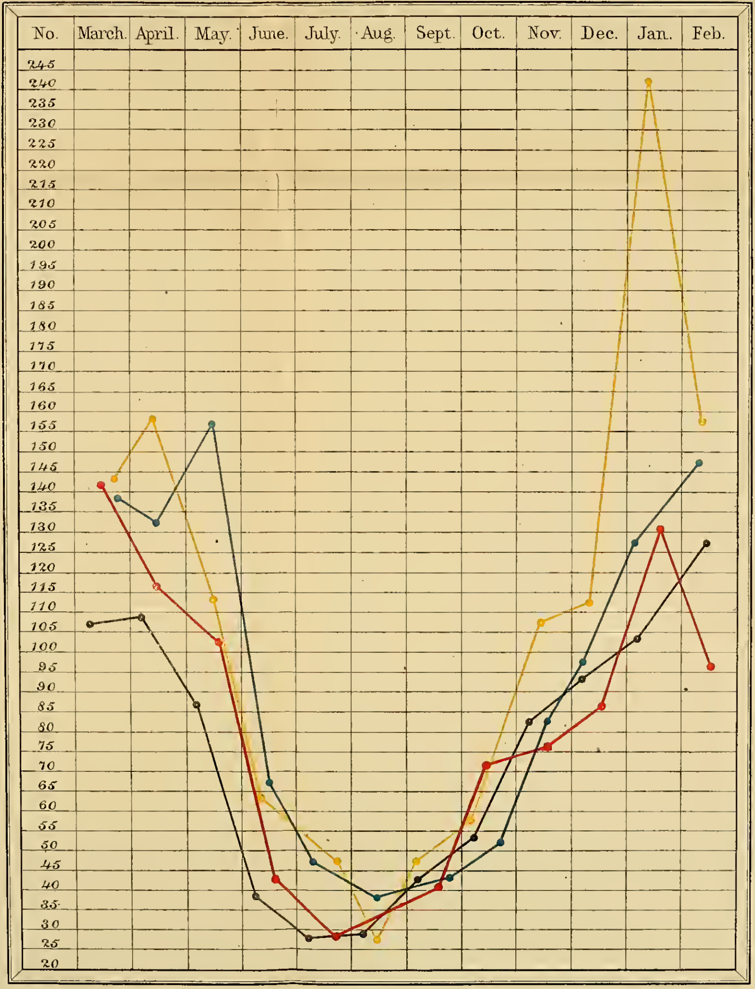


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TABLE IV.

NUMBER OF DEATHS IN EACH MONTH IN PERSONS 70 YEARS OLD AND MORE.

1871-72 IN BLACK, 106 DEATHS, 1872-73 IN RED, 120 DEATHS, 1873-74 IN BLUE 125 DEATHS, 1874-75 IN YELLOW 152 DEATHS.

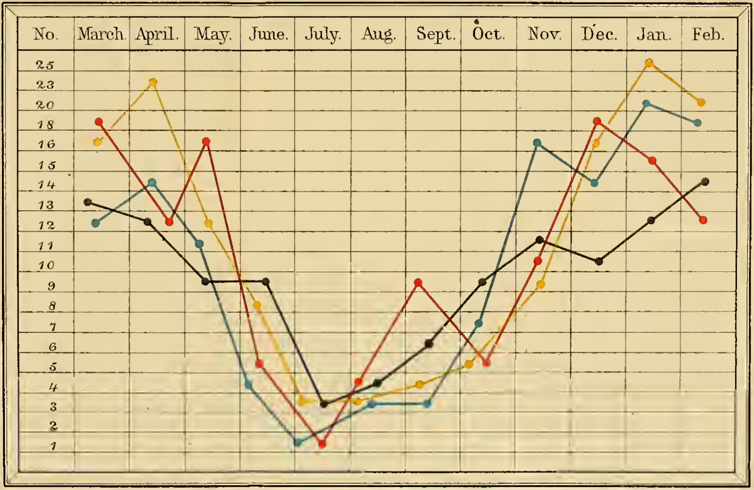

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TABLE V.

SHOWS THE LOWEST THERMOMETER AND THE MEAN DAILY RANGE OF THE THERMOMETER FOR EACH MONTH IN THE YEAR.

1871-72 IN BLACK, 1872-73 IN RED, 1873-74 IN BLUE, 1874-75 IN YELLOW.

THE MEAN DAILY RANGE IN BROKEN LINES.

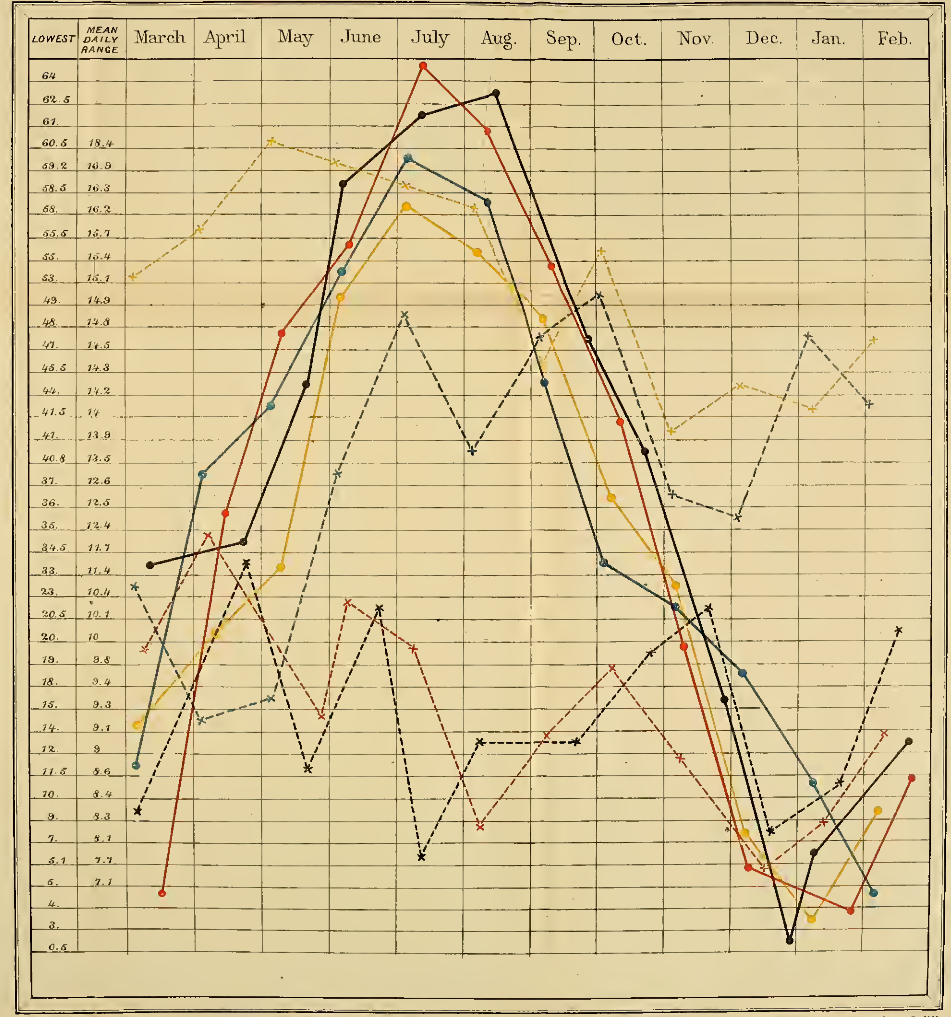

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TABLE VI.

SHOWS THE MEAN BAROMETER FOR EACH MONTH IN THE YEAR.

1871-72 IN BLACK, 1872-73 IN RED, 1873-74 IN BLUE, 1874-75 IN YELLOW.

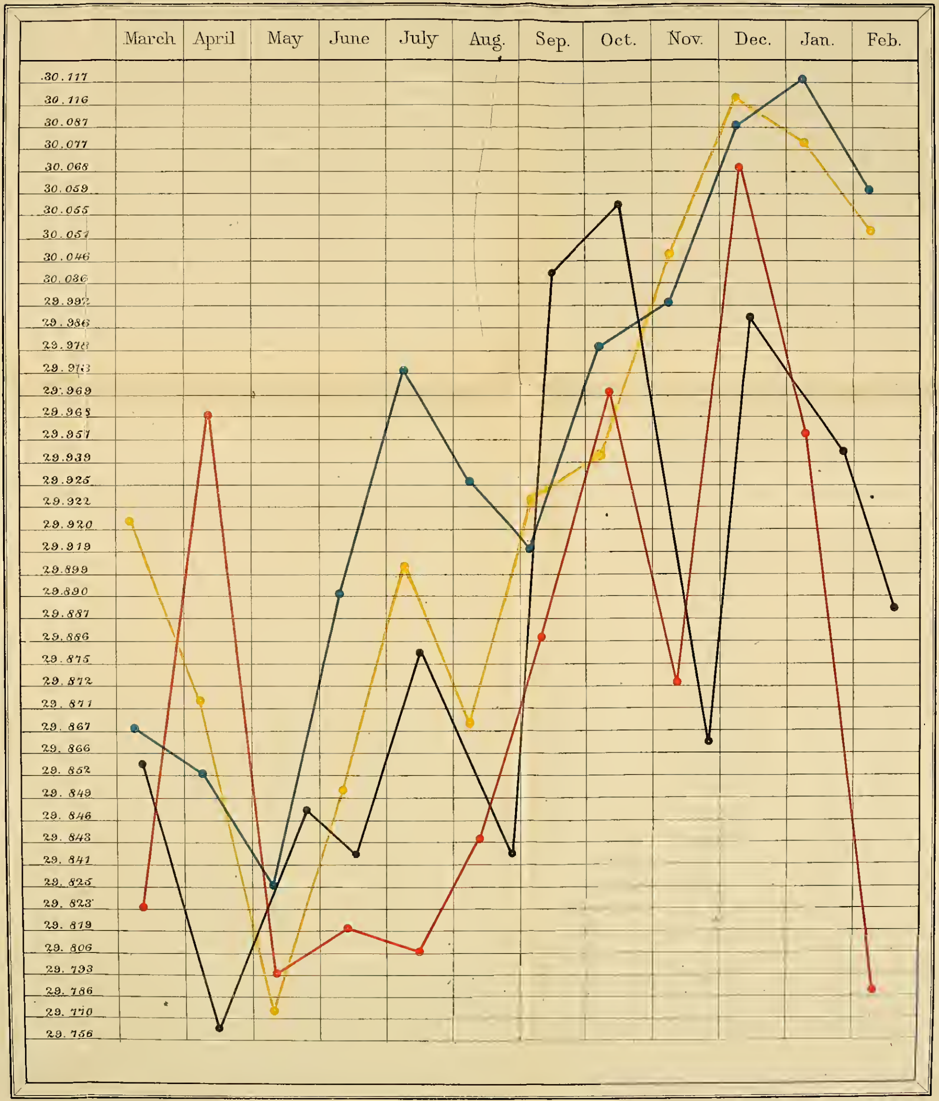

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TABLE VII.

SHOWS THE MEAN HUMIDITY FOR EACH MONTH IN THE YEAR.

1871-72 IN BLACK, 1872-73 IN RED, 1873-74 IN BLUE, 1874-75 IN YELLOW.

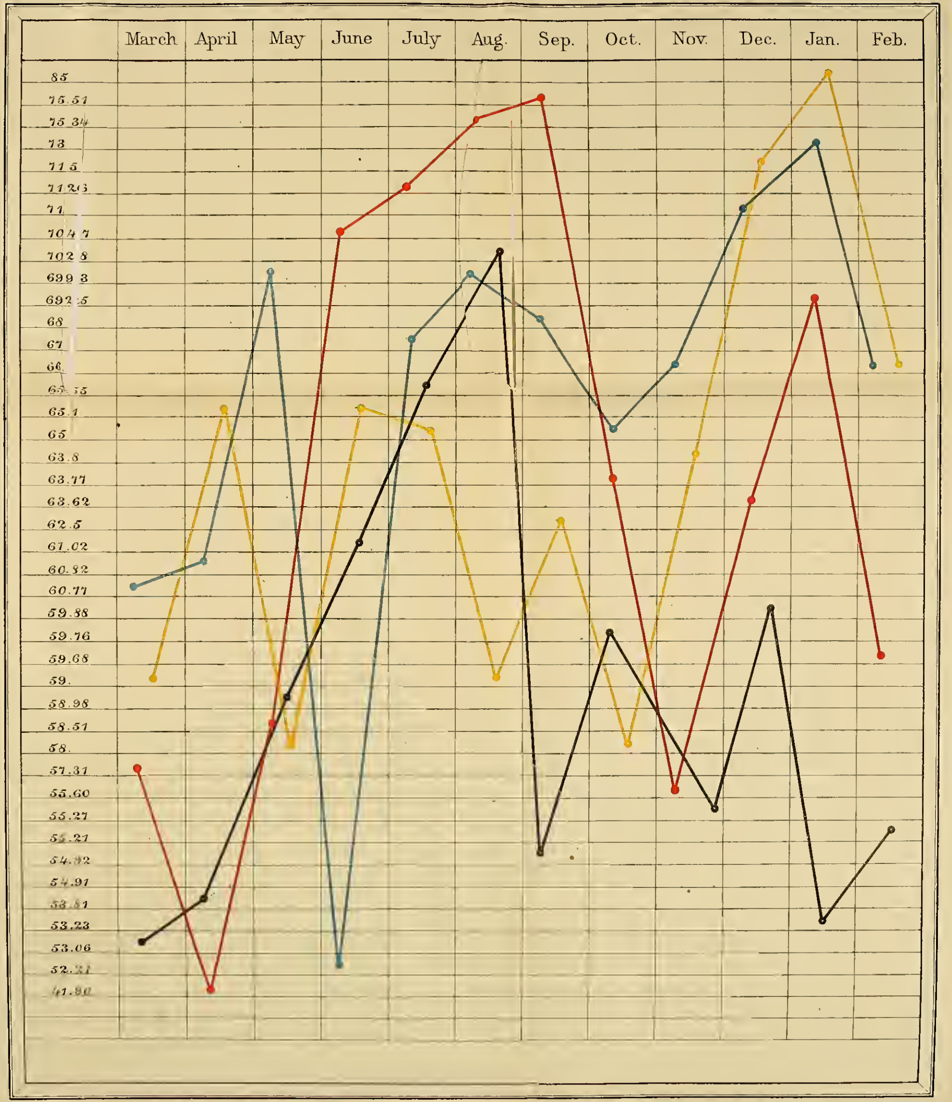

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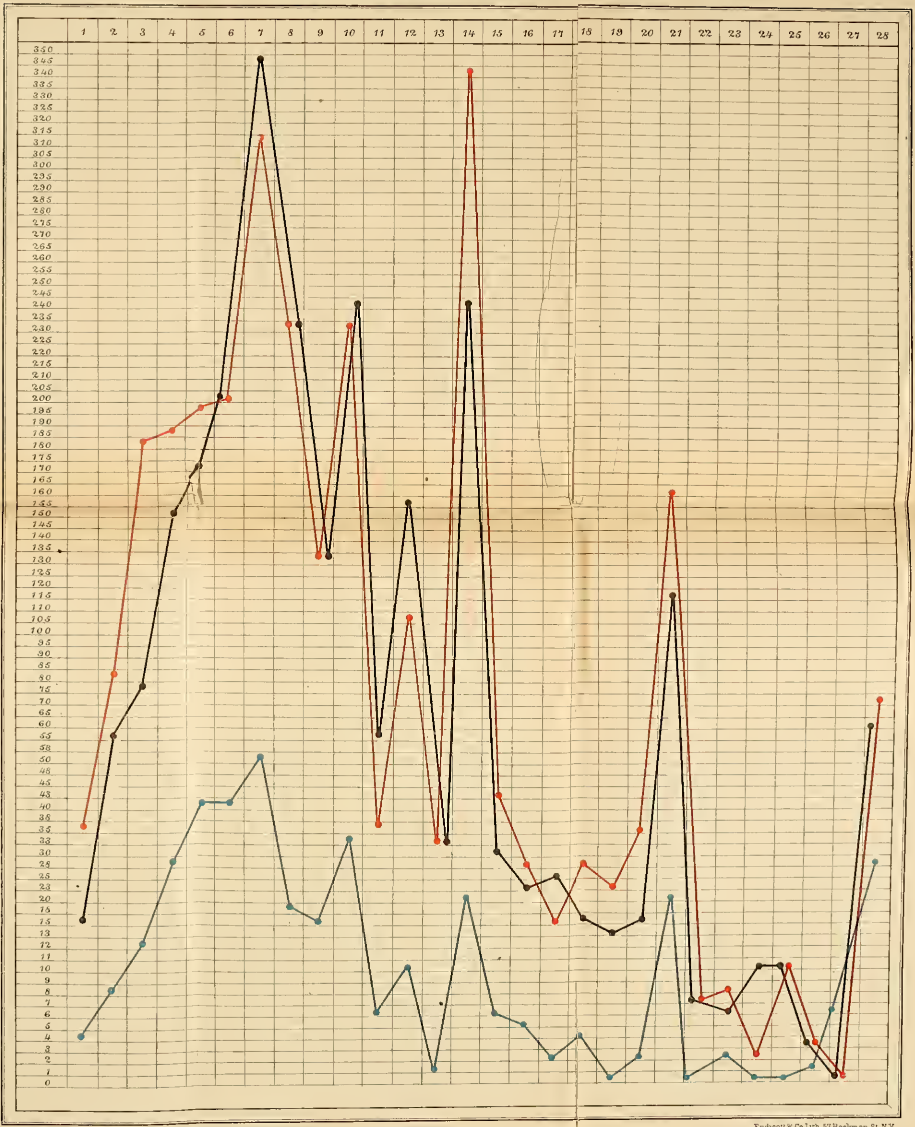
TABLE VIII.

SHOWS THE DURATION OF THE DISEASE IN DAYS.

CHILDREN UNDER 5 YEARS IN RED, PERSONS FROM 5–70 IN BLACK, PERSONS OVER 70 IN BLUE.



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REPORT ON PNEUMONIA.

To the Board of Health:

GENTLEMEN—The following statistics have been compiled from the records of deaths from acute pneumonia occurring in New York from March 1, 1871, to March 1, 1875. By the kindness of the Board of Health I was furnished with the entire record of such cases, and from these I selected those which seemed to be uncomplicated cases of acute pneumonia. The whole number of such deaths during this period of four years was 7,873. The number of deaths at different ages can be seen in Table I.—nearly half the entire number was in children under five years old. In persons older than five years the least mortality was in persons from ten to twenty years old; the greatest mortality in those from forty to fifty years old.

The season of the year at which the greatest number of deaths from pneumonia occur can be seen from Tables II., III., and IV.

Table II. gives the mortality for the different months of the four years in children under five years old; Table III. the mortality in persons over five years old; Table IV. the mortality in persons seventy years old and over.

It will be seen in all three tables that the majority of the cases occur in the three spring months, March, April, May, and the three winter months, December, January, and February; the minority of cases in the three summer months, June, July, and August.

In persons over five years old the curves are very regular, and the difference between the spring and winter months and the rest of the year very striking.

In persons over seventy years old the same law seems to prevail.

In children under five years old the curves are much less regular. This may be due to the fact that in children pneumonia so frequently follows other diseases.

In Table V. is given the lowest temperature and the mean daily range of temperature for each month in the year, for the four years.

It will be seen that the curves of mortality correspond in general with those of temperature, the greatest mortality corresponding to the lowest temperature.

In 1871–72, however, the mortality is greater in April and February than corresponds with the temperature, but in each of those months the daily range of temperature is greater than usual.

In 1872–73 the two months of greatest mortality, March and January, are those in which the temperature was the lowest.

In 1873–74 the most fatal spring month was May, although the temperature was not very low nor the daily range of temperature very great. February, however, shows both the greatest mortality and the lowest temperature of the three winter months.

In 1874–1875 April was the most fatal of the spring months, the temperature was low, and the daily range of temperature great. In January the mortality was greater than in any single month of the four years. The temperature was low, and the daily range of temperature much greater than usual.

So far as these four years go, they seem to show that in persons over five years old the combination of low temperature with great daily range of temperature is accompanied with a large number of deaths from pneumonia.

In children under five years old the curves of mortality do not seem to correspond very closely either with the lowest temperature or the daily range of temperature.

In Table VI. is given the mean height of the barometer for each month of the four years. There seems to be no close relation between the height of the barometer and the mortality. The greatest mortalities seem to correspond to rather a low barometer.

In Table VII. is given the mean humidity for each month of the four years. It will be seen that in the spring and winter months there is some correspondence between the degree of humidity and the mortality—the greater the humidity the greater the mortality. This is especially the case if a low temperature exists at the same time as a high degree of humidity.

In Table VIII. is given the duration of the disease in days in children under five years old, in persons from five to seventy years old, and in persons over seventy. The duration is only given up to twenty-eight days, as I did not feel sure of the records beyond that time.

It will be seen that the disease seems to show a preference for terminating fatally on the seventh, tenth, fourteenth, twenty-first, and twenty-eighth days. It may be, however, that this is partly to be explained by the habits of many physicians of writing one, two, three or four weeks, instead of the exact number of days.

So far as the tables go, they seem to confirm the old idea that pneumonia is a local inflammation of the lungs, not due to malaria, or sewer gas, or bacteria poisoning, but to the condition of the weather.

Yours, truly,

FRANCIS DELAFIELD, M. D.

HYDROPHOBIA IN DOGS AND OTHER ANIMALS,

AND THE SANITARY PRECAUTIONS AGAINST ITS TRANSMISSION TO THE HUMAN RACE.

W. De F. Day, M. D.,
Sanitary Superintendent:

Sir—The subject of hydrophobia has been recently attracting more than ordinary attention, not only here, but also throughout France and England, particularly the latter country, in the north of which canine madness has for several years been prevailing to an alarming extent. On account of its undue frequency there has been provoked considerable discussion as to the character of rabies, and during February last a number of communications upon the subject appeared in the London *Lancet*. In this correspondence the Hon. Grantley F. Berkeley, the well-known sportsman, maintains the remarkable theory that there are *two distinct forms of rabies canina*—one hydrophobia, pure and simple, characterized by a *dread of water, and communicable by inoculation*—another attributable solely to *distemper*, *not marked* by any *fear of water*, *and incapable of transmission*. The first form, viz., *genuine hydrophobia*, he considers so extremely rare as to be *scarcely ever observed*. These singular views are warmly endorsed by Dr. E. P. Philpots, whose confidence in their truth is so strong that he expresses his anxious desire to be bitten by some so-called rabid animal. Considering the dangerous influence of such positive opinions upon the ignorant and credulous, it might almost be hoped that for the sake of humanity, as well as of science, the doctor's wish should be speedily gratified.*

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* A melancholy instance of the fatal results of the same incredulity has lately been witnessed in the death by hydrophobia on June 17, 1874, of Mr. Francis Butler, long prominent in this city as a canine veterinarian and dealer in the rarer breeds of dogs. Mr. Butler was an accomplished gentleman, a linguist, and author of several excellent treatises relating to dogs. He was devoted to a profession in which his innate fondness for the canine race had induced him to engage. Some six weeks previous to his death he was severly bitten in the thumb while administering medicine to a Spitz with suspicious symptoms; but confident in his peculiar opinion —one similar to that of Sir G. Berkeley—he neglected the proper precautions, and soon after fell a victim at his home in Brooklyn to the deadly invasion of the rabific virus.

The principal opposition to the views of these gentlemen has come from Mr. George Fleming, Veterinary Surgeon to the Royal Engineers, a scientific man, and author of a recent work* upon hydrophobia. Mr. Fleming's remarks are somewhat caustic, but so utterly destructive of the absurd doctrine enunciated by Sir Grantley Berkeley that the latter excuses himself from replying to them, on the ground of presumed personalities.†

In New York City, during March and April of the present year, four persons perished from hydrophobia, and new interest in the subject was thereby awakened. Although in 1873 no cases of the disease were reported, its human victims within the four preceding years had amounted to no less than twenty-one. During the twenty years ending with 1874, its mortality in this city has been as follows: In 1855 there occurred four deaths; in 1856, three deaths; in 1857, two deaths; in 1858, no deaths; in 1859, two deaths; in 1860, no deaths; in 1861, five deaths; in 1862, one death; in 1863, three deaths; in 1864, one death; in 1865, three deaths; in 1866, two deaths; in 1867, four deaths; in 1868, one death; in 1869, five deaths; in 1870, three deaths; in 1871, seven deaths; in 1872, six deaths; in 1873, no deaths; in 1874, five deaths.

Many physicians of long practice have never had an opportunity of meeting with this affection in either man or other creatures; and although most medical men are more or less acquainted with its symptoms in the human subject, as delineated in the text-books, its history and many interesting facts in connection with its occurrence among the lower animals, are not generally familiar to the profession. It is believed that a better acquaintance with such facts and a knowledge of the most practicable and effectual measures for our own protection against the disease, in cities more especially, are of sufficient importance to sanitary science to be embodied in a special report, which I have now the honor to present.

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* This work is entitled "Rabies and Hydrophobia—their history, nature, causes, symptoms, and prevention." It is a very complete treatise upon the subject and has afforded me much material for the present report.

† The existence of hydrophobia *sui generis,* as produced by a specific virus, was denied by Bosquillon toward the close of the last century, and the same idea has been more recently adopted by Maschka and Lorinser. As late as the last century no fewer than seven varieties of hydrophobia were accepted by some writers. Of the seven only two were regarded as incurable. Linnæus divided the disease into two distinct genera—viz., rabies and hydrophobia. The former he thus defined: "*Desiderium mordendi lacerandique innocuos*"; and the latter, "*Aversatio potulentorum cum rigore et sardiasi,*" adding "*sæpius præcedenti maritæta.*" In the fourth century, Oribasius of Pergamus, physician to Julian the Apostate, in writing on hydrophobia, regarded it as generally fatal; but he spoke also of a curable form of the disease due to other causes than the bite of an animal. The absurd opinion that hydrophobia may originate from the bite of a healthy dog is unworthy of discussion by scientific men of the present day (see foot note, page 756).

Hydrophobia is a remarkable disease, to which both the human species, and probably all of the brute creation, are subject. In examining its history we find that the Hebrew writers are altogether silent with regard to it, and we can discover only rare allusions to it among other authors previous to the Christian era. Such references, however, are sufficient to indicate that, although it may not have been so prevalent among the nations of antiquity as among those of more modern periods, yet it was in very ancient times recognized as a peculiar disorder infesting certain animals, and even man himself.

The earliest distinct mention of the disease occurs in a Hindoo medical work of great antiquity, dating probably as far back as nine or ten centuries before Christ, written by a renowned physician named Susruta.* It is observed therein that when dogs, jackals, foxes, wolves, bears, or tigers become rabid, they foam at the mouth, which remains open, and from which flows saliva; their tails hang down; they do not hear or see well; they snap at and bite one another, and thus communicate the same malady. The symptoms of hydrophobia in human beings who have been bitten are likewise detailed briefly, and are said to terminate in convulsions and death. Scarification of the wound and burning it with boiling *ghee*—a sort of oil made from butter—are recommended, as well as various antidotes to be subsequently administered. This concise and remarkably accurate description of the affection, with suggestions for treatment, may be regarded as an epitome of all ancient and modern research upon the subject.

Homer is supposed by some authors, though without much reason, in my opinion, to allude to hydrophobia in the Iliad, where Hector is compared to a raging dog. There are two passages in Hippocrates which appear to indicate that the physician of Cos had observed its characteristic symptoms in man, but failed to regard it otherwise than as a variety of idiopathic phrenitis. His cotemporary, Democritus (the laughing philosopher), however, who was a famous traveler, had probably encountered the disease in foreign parts, as he was evidently well acquainted with its most striking peculiarities. We are informed by the distinguished Roman physician Cœlius Aurelianus, that Democritus, in a treatise upon Opisthotonos, had described the affection in the human subject, admitting its origin from the bite of rabid animals, but considering it simply as a form of tetanus.

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* See Wise's History of Medicine.

Theocritus and Plato refer to rabies among wolves. Aristotle, in his History of Animals, remarks that dogs are afflicted with madness, quinsy, and gout; that the first renders them furious and inclined to bite other animals, who thereupon also become rabid; and that all animals *except man* are liable to be seized with and destroyed by the malady so engendered. The physicians Artemidorus, Gaius, and Asclepiades also mention the disease, and it is alluded to by Zenophon and Epicharmus.

In the early portions of the Christian era references to the affection by physicians, poets, and other writers become more frequent. M. Artorius, the friend and medical attendant of Augustus, speaks of it, in a treatise upon the subject, as being situated in the stomach. Gratius Faliscus, a poet of the same period, describes rabies in a work entitled the Cynegeticon. Virgil, in his Georgics, classes rabies among the distempers of cattle and sheep, induced by a pestilential condition of the atmosphere. Ovid speaks of a rabid she-wolf and rabid centaurs, and Pliny of the bite of a mad dog. Horace employs the expression rabies canis, in a figurative sense, applying it to the fierce heat of the dog-star. The disease is mentioned by Columella, a writer on husbandry, in the first century, who alludes to an opinion common among shepherds that a dog may be ensured against rabies by biting off the last bone of its tail on the fortieth day after birth. This is still a popular superstition among dog-fanciers in some countries. Suetonius refers to wild animals affected with madness. Eumedes, a physician in the reign of Tiberius, makes some interesting observations upon the disease, remarking that even the shedding of tears will excite spasms in an affected person. Dioscorides, in the time of Nero, appears to be the first who claims to have actually treated the disease. Both he and Galen describe it as attacking animals and men, and agree in the opinion of its communicability from the former to the latter by contact of the morbid saliva with the second skin. But Galen and Celsus as well concern themselves rather with the prevention and treatment of hydrophobia than with its history and progress. Their cotemporary, Magnus of Ephesus, locates the affection in the stomach and diaphragm. According to Plutarch, it was not until the time of

Pompey the Great that the rabific poison first began to manifest itself among human beings. Andreas of Caryste, a physician of the Alexandrian school, has left a work upon the disease, which he terms *Κυνολυσσος*. Cœlius Aurelianus, already mentioned, a distinguished physician of the reign of Trajan or Adrian, or perhaps as late as the fifth century, is the first to furnish an accurate detailed description of the affection in man, and of the various controversies regarding it. He mentions it as being endemic among animals in Caria and Crete. About the same period the affection is treated of by a number of other medical men. Ætius, a Mesopotamian doctor of the sixth century, is the first to furnish anything like an accurate description of rabies in dogs. A century later the physician Paulus Ægineta gives another excellent account of hydrophobia.

Among the Arabian physicians Yahia-Ebn-Serapion, Rhazes Africanus, and Avicenna mention the disease, the last terming it simply "*canis rabidi morsus.*"

Since the time of Paulus Ægineta we find the affection described by numerous European writers.

Fleming recounts the following curious story of a case of rabies in a bear, recorded about the year 900. At that time immense forests covered Burgundy, Maconnais, Brescia, and part of Lyonnais, which were infested with wolves, wild boars, bears, and other ferocious animals. One day a bear, following the course of the river Saone, at last arrived at the quay at Lyons. Everybody fled except some boatmen, who, armed with heavy sticks, attempted to kill it. The bear, little intimidated by their number, rushed among them, and bit about twenty. Six of these persons were shortly afterwards smothered in consequence of fearful madness. The other fourteen, however, had thrown themselves into the river to escape the animal's attack, and, it is affirmed, were thus preserved from the effects of the poison by its being washed out of their wounds.

In 1026 an outbreak of rabies among dogs in Wales is mentioned in the laws of Howel the Good. From that time it appears to have been well known in England, numerous specific remedies, charms, and incantations against it being recommended in old Anglo-Saxon manuscripts still extant.

One of the earliest reports of scientific interest refers to wolves afflicted with hydrophobia in Franconia, Germany, in 1271. More than thirty shepherds and peasants fell victims to their attacks. In 1500 Spain suffered from the ravages of canine madness. In 1532 a rabid dog is said to have strangled the Cardinal Crescence, the Legate of the Pope, at the Council of Trent. According to Forster there was an epizoöty of rabies among dogs at the same time with the epidemic plague in Flanders, Turkey, Hungary, and Austria in 1586. Bauhin informs us that in 1590 it appeared in an epizoötic form among the wolves of Monthelliard, and in 1604 it was wide-spread in Paris. In 1691 dogs in great numbers became mad throughout Italy, and in 1708 it was epizoötic among dogs in Suabia. Fleming states that in 1712 wild beasts of all kinds perished in large numbers at Somogy, Hungary, and in the woods the country people found dogs which had been driven there by madness. Men bitten by them were quickly seized with frenzy and hydrophobia. From 1719 to 1721 severe outbreaks of the disease took place in France and Germany, and in 1722 and '23 it prevailed in Silesia, invading Hungary, and it visited other portions of Europe in 1725 and 1726. Dogs, wolves, and wild animals generally were affected, particularly in Silesia and Lusatia. The disease, according to Huxham, prevailed in England in 1734–5. Hughes, in his History of Barbadoes, narrates that in 1741 many dogs went mad in those islands. The county of Fife, Scotland, was infested with mad dogs in 1748. In 1752 numerous mad dogs were reported about St. James, London, and orders were issued to shoot all that appeared. According to Layard, London again suffered from the disease between 1759 and 1762. In 1763 it broke out among dogs in Italy, France, and Spain, and in many places all dogs were slaughtered. In Madrid 900 were killed in a single day. Rabies was alarmingly frequent among dogs and foxes in Boston and its neighborhood in 1768, '70, and '71, when it was there regarded as a novel disease. Lipscomb says that the disease was very general in England in 1774. From 1776 to '78 it reigned almost continually in the French West Indies, the true disease never having been observed there before. In 1779 it was very common among dogs in the city of Philadelphia and in Maryland, and in the same year it affected wolves in Belluno, Italy, and about Bourges, France. In 1783 it made its advent in the islands of Jamaica and Hispaniola as a very serious epizoötic.* In 1785-6–9 canine madness was extremely prevalent throughout the United States. In 1788 it raged in England. From 1785 to '89 various portions of Europe were afflicted, the country people being terrified by numerous rabid wolves. In the latter year the disease was particularly prevalent in Munster, Westphalia. In 1797 it was epizoötic in Rhode Island, U. S.

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* At that time canine madness became so general in the latter island that its government ordered the extermination of the whole canine race. This order was so effectually carried out that the surface of the water in the harbor of Port au Prince was literally covered with the bodies of slaughtered dogs.—(*Gentleman's Magazine*, Feb., 1784.)

About the commencement of the present century it was noticed that foxes began to suffer frequently from rabies. In 1803 these animals were running mad in large numbers through the Pays de Vaud, and in the Aubonne, Orbe, Cossenay, and Yserden districts at the foot of the Jura. In 1804 similar outbreaks of vulpine madness occurred on the northern shore of the Lake of Constance, and thence extended through Germany. This epizoöty continued more or less till 1837, attacking the foxes of Wurtemberg, Baden, Bavaria, the upper Danube, the Black Forest, Forest of Thuringia, Jena, the Voralberg, Upper and Lower Hesse, Hanover, Hohenzollern, Rottenberg, and Ulm. At this period badgers were also observed to be affected. We are informed by Blaine that in 1806 rabies in the dog so abounded in the neighborhood of London that scarcely a day passed without his being consulted about one or more cases, and sometimes he attended three, four, or five a day for weeks together. From that period until 1823 it prevailed every year in London and its suburbs.

The most memorable period in the records of hydrophobia was between the years 1803 and 1830, when it appeared to an unheard of degree in many portions of both Europe and America. In the summers of 1803 and 1804, during the presence of excessive heat, and after long-continued warm weather, it broke out upon the northern coast of Peru. It is described as it prevailed in that country by Prof. Unanue, Proto-Medico. His account, though somewhat highly colored, is, nevertheless, extremely interesting. He informs us that the disease became general among quadrupeds, attacking them indiscriminately, but fixing itself especially upon dogs. The dogs exhibited the ordinary appearances of the affection. The cats ran about with hair erect. The horses and asses were arrayed against each other. The cattle leaped furiously, and engaged in hostile encounters. The disease, engendered, as the professor believed, by atmospheric conditions, was subsequently propagated by specific contagion, spreading into the interior of the country. It proved fatal to many of the inhabitants of Arequipa and Ica, carrying off forty-two persons in the latter town alone. In one instance twelve fell victims out of fourteen bitten by a single dog. The largest number of deaths occurred in from twelve to ninety days after the bite. The affection would, therefore, appear to have been of a more virulent character than usual. It is likewise related that a number of slaves upon a sugar plantation contracted the disease by feeding upon the beef of rabid cattle, a statement which we can hardly accept as true.*

About this same period hydrophobia was noticed to be remarkably prevalent in many portions of the United States, where the medical literature of the time abounded with accounts of cases and discussions as to the character and treatment of the disease.

In 1810 Southern Russia was scourged by the affection. In Prussia, between 1810 and 1819, its human victims amounted to 1,635, a large number of whom owed their deaths to the attacks of rabid wolves. In 1813 the disease was very common in the Ukraine. In 1815 it prevailed in Austria, and at the same time, according to Viborg, it raged in Copenhagen. In Podolia, in 1818, Marochetti, a celebrated Russian physician, attended no fewer than 26 cases of hydrophobia in the human subject, and shortly afterward announced to the medical world his so-called discovery of *Lyssi*, which created a great sensation. According to his description the hydrophobic virus, after the bite of a rabid animal, is transported to and deposited in the orifices of the secretory ducts of the sublingual glands, beside the frenum linguæ and upon the lateral parts of the inferior surface of the tongue, where form a number of vesicles or pustules of variable size, in which by means of a probe fluctuation can be detected. It cannot be determined precisely when these pustules appear—ordinarily between the third and ninth days after the bite—sometimes the twentieth day, or even later. If the poison in these pustules be not destroyed by cauterization during the first twenty-four hours of their appearance, it will be removed from them by resorption, producing metastasis to the brain and nervous system, with resulting hydrophobia. Thus, according to Marochetti, the virus does not remain in the wound where it was originally deposited, but is quickly conveyed in all its integrity to the sublingual glands. According to this physician similar appearances are to be found in rabid dogs and other animals. In 1822, Magistel, a French doctor, was said to have confirmed the existence of these pustules in several cases coming under his observation; but notwithstanding the treatment recommended and applied, five out of ten persons bitten by one dog were seized with the malady and died; and, in a word, the theory was soon exploded. The truth is, as Watson observes, that the mucous follicles of the mouth, and those at the base of and particularly beneath the tongue, are commonly exaggerated in both men and dogs laboring under the disease—and these enlarged follicles were regarded by Marochetti and Magistel as a specific eruption furnishing the virus and pabulum of this complaint.

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* Gohier alone mentions similar instances. He states that he has seen hydrophobia in dogs result from eating the flesh of a rabid dog in one instance, and of a rabid sheep in another. But a large number of experiments by Hertwig would seem to prove the innocuousness of such food.

In 1819 rabies prevailed in Canada, whose Governor-General, the Duke of Richmond, fell a victim to it, having been bitten by a captive fox. In 1820, as Blaine informs us, rabies canina was again rife in England, and continued alarmingly prevalent for a number of years. In 1822 it was common in Holland. In 1819 and 1829 Italy suffered from the disease; and Brera mentions the circumstance of a wolf's having communicated it to nine persons out of thirteen whom it had bitten. The period between 1819 and '27 is particularly noticed by Wirth as remarkable for the prevalence of rabies among the foxes of Switzerland and Germany, and those animals infected large numbers of dogs, cats, horned cattle, horses, pigs, goats, and sheep. Notwithstanding their natural shyness, the mad foxes boldly faced and followed men and animals in order to attack them. In 1824, throughout many districts of Russia and extending thence into Sweden and Norway, the disease prevailed extensively among foxes, wolves, dogs, cats, and reindeer. In 1828 its human victims in England and Wales amounted to twenty-eight. In 1829, according to the Veterinary Professor Prinz, it was very destructive in Dresden. From 1823 to 1829, as Hertwig informs us, it was unusually common in Berlin, and, as Böhme states, in Saxony also.

In 1830 the subject of hydrophobia had so alarmed the public mind in England that the House of Commons thought fit to appoint a select committee to investigate it. Evidence was furnished by many eminent physicians, surgeons, and veterinarians, among whom may be mentioned Sir Benj. Brodie, Mr. Benj. Travers, Mr. Morgan of Guy's Hospital, Mr. Earle of St. Bartholomew's, Prof. Coleman, and Mr. Wm. Youatt. Mr. Earle presented positive proof of the undue prevalence and increase of the disease in England during his time, remarking that he had witnessed twenty-five cases in the human subject within as many years, whereas his father had seen but one in fifty years of previous practice. Mr. Youatt testified that he had recently applied lunar caustic successfully to some four hundred bitten persons, and a surgeon of St. George's affirmed that he had within a limited period similarly treated four thousand without an accident.

During the second quarter of the present century, as compared with the first, there ensued a decided abatement of the disease in England, owing to the creation of the dog-tax and the enactment of other laws calculated to decrease the number of worthless curs.

In Vienna, in 1830, there were reported in rapid succession thirty-nine cases of rabies in the dog. It then almost disappeared until 1838, when one hundred and seventeen cases occurred. In 1839 there were reported 63 cases; 317 in 1840, and 141 in 1841. Of the last, only fifteen were bitches. The largest number of cases were noticed in February and May—twenty-one respectively—and the fewest in September, November, and December. Between 1830 and 1847 there were 1,038 human victims to hydrophobia in Austria. In 1831 and '32 canine rabies was wide-spread in the Duchy of Posen. In 1833 it existed to an alarming extent in Barbadoes. In 1834-5 it prevailed in Saxony, Pomerania, and Switzerland. In 1835 it was frequent in Chili, South America. In 1836 it was seriously prevalent in Paris, and from 1839 to '42, according to Prof. Rémy, the disease was epizoötic among the foxes of Wurtemberg, and was by them communicated to many dogs, and a large number of the latter animals were thus affected in Baden. Between 1840 and 1842 the malady appeared in various departments of France, being particularly destructive in Lyons and its vicinity. In May, 1844, great numbers of mad dogs were seen in Roscommon, Ireland. In the same year it made its first appearance in Malta, and became very serious. In 1851 and 1852 there was a terrible epizoötic of canine rabies in northern Germany. In 1852, in the small town of Adalia, Turkish provinces, a mad wolf bit 128 persons and a great number of cattle. In 1858 hydrophobia became so destructive in Algeria that the Governor-General was compelled to issue a circular relative to preventive measures. From 1855 to 1860 the disease was common in England, in Northern Germany, in France, and in Spain. In 1860 it prevailed very extensively among dogs, and was very destructive to cattle in Ohio and

Missouri, U. S. Between 1860 and 1862 numerous cases of hydrophobia communicated from dogs to natives occurred in China at Tietsien, near Pekin, and at Canton, while about the same period the presence of rabies was more than usually noted in Vienna and Rhenish Prussia.

According to Sir Samuel Baker the disease was epizoötic in Abyssinia in 1862. In Bavaria, between 1863 and 1867, there was a yearly average of 800 cases of hydrophobia in a total of 275,000 dogs. From 1863 to 1867 it was very prevalent in Saxony also, where in the three last years of that period there were reported 764 cases of canine madness. It created much alarm in Lancashire, England, in 1864. In 1864–5 the city of Lyons was thrown into great excitement on account of the terrible frequency of this redoubtable disease. In 1865 it was unusually common in the vicinity of London, and during the next year it assumed formidable dimensions in England. In 1866 it was epizoötic in Athens, Greece. In 1867 the English dogs at Shanghai, China, were seriously affected, and a number of persons were bitten, with fatal results. In 1868 many mad dogs were seen in Belgium, a country usually exempt from the affection. In 1869 the disease was rife in Paris. In 1870 canine rabies created great terror in the north of England, and it has prevailed very constantly in that country up to the present time.* In 1871 hydrophobia was remarkably fatal in Barbadoes. Oertle reports a severe epizoötic of the disease among foxes in Carinthia from 1866 to 1872. According to the last United States census for the year ending June 1st, 1870, there had occurred in the State of Louisiana alone 22 deaths from hydrophobia, in a total for the whole country of 63.† Of the remainder the States of New York and Pennsylvania each furnished 9.

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* Fleming remarks that "the wide and serious extension of this epizoöty over the country appears to have been largely if not altogether due to the insufficiency of the police measures adopted in the different towns and districts, the late period at which they were introduced, the want of a proper and uniform sanitary organization to combat the spread of this and other contagious diseases of animals, and the general ignorance prevailing with regard to its symptoms and nature."

† The mortality of hydrophobia in the human subject, like that of other communicable diseases, varies very considerably in different countries at various periods. In France, between 1854 and 1860, the number of deaths were computed by the Minister of Public Works at 1,000. In Prussia, from 1810 to 1819, there were 1,635 deaths, and 1,073 from 1820 to 1834. In Bavaria, between 1839 and 1847, the mortality was 39. The Austrian Empire suffered severely during the period from 1830 to 1847, when 1,038 persons succumbed to hydrophobia. In Sweden the mean annual death-rate at four different periods of the disease was: 58 from 1778 to 1785, 138 from 1786 to 1790, 6 from 1831 to 1835, and 42 from 1856 to 1860. In Belgium, between 1856 and 1860, there were 26 deaths. In Algeria, from 1844 to 1863, there were recorded 47 deaths—34 Europeans, 7 natives, 6 nationality unknown. The deaths in England in 1849 amounted to 17, in 1850 to 13, in 1851 to 25, in 1852 to 15,

Although the manifestations of hydrophobia are clearly modified by character, habit, and temperament in various species and varieties of animals and even in individuals, it is undoubtedly the same disease in all, whatever its peculiar form or mode of origin or propagation. It is almost universally conceded that the introduction of a specific virus into the system through either an actual wound, an abraded surface or a delicate mucous membrane is an essential preliminary to the development of this affection in man. But its origin among brutes has always been and still is a subject of much discussion, and one worthy of our most serious consideration. Hydrophobia certainly infests and by many is regarded as capable of originating *de novo* among certain *carnivora*, viz., the dog, wolf, fox, jackal, cat, skunk, and raccoon, while other creatures, including man, contract it by inoculation alone.

Of the various conditions asserted as favoring its development in the canine race few have even a probable foundation. One is alleged to be the state of repressed sexual desire, the *λυττα έροτικη* of the Greeks. Others are extremes of atmospheric temperature, excitement of anger, want of water,* and insufficient or putrid food. Ziegler fixes the origin of the disease in lack of the instinctive amount of nourishment from blood and flesh, and hence designates it *blutdurst* and *fleischgier.*† Still another presumed influence is the presence under the dog's tongue of a worm-like appendage, whose existence is believed to encourage the production of hydrophobia, and whose extirpation in puppyhood is considered an infallible preventive of the disease. This peculiar appendage was alluded to as a cause of madness by the poet, Gratius Faliscus, already mentioned, and the miraculous properties ascribed to it may doubtless be referred to a very ancient myth.

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in 1853 to 11, in 1854 to 16, in 1855 to 14, in 1856 to 5, in 1857 to 3, in 1858 to 2, in 1859 to 4, in 1860 to 3, in 1861 to 4, in 1862 to 1, in 1863 to 4, in 1864 to 12, in 1865 to 19, in 1866 to 36, in 1867 to 10, in 1868 to 7, in 1869 to 18, in 1870 to 32, in 1871 to 56, in 1872 to 39, and in 1873 to 28. In Scotland, between 1855 and 1863, only 12 persons died from hydrophobia, and none in the succeeding three years. According to the national census there occurred in the United States during the year ending June 1st, 1860, a mortality from hydrophobia of 38. In New York City, from 1855 to 1874, inclusive, there were 57 deaths; none having been registered in 1858, 1860, or 1873.

* In Venice, according to Mosely, on account of the opinion that the disease is occasioned by thirst, all barbers, shoemakers, and coffee-house keepers are obliged to have a small vessel of water before their doors that the dogs running about the streets may drink what they want, as there are no other places in that city where they can obtain fresh water.

† According to Ménécier poor feeding retards the outbreak of the disease in an inoculated animal, while hearty feeding accelerates it.

Pliny called it *lyssa*, and asserted that when removed from the dog, carried thrice around a fire, and administered to persons bitten by a rabid animal, it possessed the virtue of a specific against hydrophobia. In an Anglo-Saxon leech-book of the 11th century, a similar recommendation is made, as follows: "Take the worms (thymas) which be under a mad hound's tongue (under thede hundes cunzan), snip them away, lead them round about a fig tree, give them to him who hath been rent; he will soon be whole." Allusion is made to it in a work entitled the Kynosophion, supposed by some to have been written by Phæmon, while others attribute it to Demetrius Pepagomenos, a Greek writer who lived at Constantinople in the 12th century. In this work it is stated that there is underneath the dog's tongue a little body like a white worm which must be quickly destroyed ere it increase and invade the whole throat. In the 16th century Fracastorius, in a poem styled "*Alcon sive de cura canum venaticorum*," refers to it in the following words: "*Vulnificus vermis suffunditque ora veneno.*" In more modern times the Germans generally believed in it, terming it the *toll-wurm*, or *worm of madness*. So popular was the superstition at one time that in the middle of the last century there existed in Prussia an ordinance requiring all owners of dogs to submit them to this mutilation. The ordinance was rendered more specific by a royal decree of February 20, 1767, establishing an authorized corps of operators whose duty consisted in visiting semi-annually all houses containing dogs, removing the worm from every animal, and furnishing the master thereof with a certificate to that effect. The edict prescribed likewise that each dog should be so treated before it had become six months old, and persons violating the law were condemned to pay a fine of fifty Prussian crowns, or in default thereof to suffer an imprisonment of one month. In 1786 a similar law prevailed in Hanover. This so-called worm was explained by some to be a vein whose absence in a dog menaced by hydrophobia leads to engorgement of the throat and immediate asphyxia. It was regarded by Morgagni and Heydecker after careful examination as a spiral tendinous arrangement peculiar to the canine race, having some connection with the genio-hyo-glossus muscle, and serving to facilitate the act of lapping. Other authorities, however, deemed it to be the duct of the submaxillary gland, and others still maintained that it was merely the *frenum linguæ*. The English author Fothergill, in his celebrated treatise upon hydrophobia, remarked that nothing was definitely established relative to the utility of the operation, but that the whitish vermiform substance thus removed was, it might be presumed, nothing else than the canal attached to the salivary apparatus, whose destruction might exercise some influence upon the secretion in diminishing the liquid transmitting the virus. The tradition never obtained much credence among the English. Dr. Johnson spoke of the reputed worm very expressively as "a substance—nobody knows what—extracted—nobody knows why." The whole theory was, however, substantially demolished in 1786, in the very country where it was most in vogue, by the communication of hydrophobia to both men and animals from dogs whose toll-wurms had been extirpated in the most approved manner. These facts were substantiated by the investigations of several sanitary commissions at Trieglitz in the province of Detmold, and the corps of operators was finally abolished.

According to a report of Dr. Armand to the Paris Academy of Sciences, the same tradition and practice still continue in Thrace, and they are described by Auzias Turenne in the *Recenil de Médecine* for 1869 as being general in Turkey and Moldo-Wallachia. Dr. Xanthos says that in modern Greece they still remain as a memorial of the past. Fleming states that they prevail in Roumania, and Ramon de Sagra observes that they are common in portions of Spain. A similar superstition exists even in our own country, especially in the South

The other presumed causes of spontaneous rabies would appear to be equally equivocal. Unsatisfied salacity,* putrid food, hunger,† thirst, anger, and extremes of temperature are manifestly circumstances which obtain among dogs quite generally throughout the world. In some regions, so far as can be learned, hydrophobia has always been either totally unknown or extremely rare, while in others exempt from it for ages it has only recently appeared, and in most instances can be traced positively to importation.

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* But few writers now maintain the theory that the disproportion between the sexes in the canine race and consequent difficulty of sexual gratification for many males produces hydrophobia. Statistics show that the number of cases is about divided in proportion to the number of each sex, and that castrated dogs are as liable to the disease as others. Of two hundred and sixty-seven cases observed by Schrader in Hamburg, in 1852–3, there occurred two hundred and fifty-six in male dogs, ten in bitches, and one in a castrated animal. Of fifty-four pronounced cases observed by Tscherning in Denmark, from 1854 to 1857, there were found four male and three female dogs that had been castrated—thirteen per cent. Bourrel treated in eight years three hundred and forty-four rabid males and forty-nine rabid females.

† Attempts to produce hydrophobia artificially by starving dogs have been ineffectually made by Radi and Bourgelat. The same negative results were obtained by Ménécier who did not see a single instance of hydrophobia among one hundred and sixty dogs thus treated. Pilwax observed during one of the severer epizoötics in Vienna that the greater number of affected dogs belonged to owners in good circumstances, enjoying therefore for the most part proper attention as to care and food.

Although in England it has long prevailed extensively, it has always been uncommon in Scotland. Dr. Kane states that in the portion of Greenland visited by him in 1854, the affection does not exist, although it is closely simulated by a variety of endemic epilepsy with tetanoid symptoms.* We are not aware of its ever having been seen among the Esquimaux of Labrador. Odheliues, writing in 1777, declares that up to that time no account of any case of hydrophobia had ever been communicated to the Swedish scientific associations ; but from 1778 to 1790 it carried off nearly 1,200 human victims in that country, and as we have seen, it spread from Russia into Sweden and Norway in 1824. Erman, in describing the Ostyaks of northern Siberia and their dog-sledges, notices that the affection is a stranger to that region, and quotes Steller as mentioning the same fact with regard to the dogs of Kamschatka. Dr. Livingston observes that he never heard of more than a single case in South Africa, and was by no means satisfied as to its being genuine hydrophobia. According to the travelers Clark and Du Chaillu the disease is unknown upon the gold coast and in the western portion of Africa. It seems to be equally absent from the east coast of that continent, but in North Africa it is well recognized. During the early portion of the French occupation of Algeria the malady appeared to be so unfrequent as to lead some writers to suppose that it had previously had no existence in that country. But in 1860 the Medical Society of Algiers, after a careful investigation of the subject, came to the conclusion that the Arabs had been acquainted with the disease from a remote period. It is acknowledged, however, that among the native tribes rabies is extremely rare in comparison with its prevalence in the centers of civilization—*places peopled chiefly by Europeans.*

The famous Volney observes : "Among the singularities which appear most extraordinary to a stranger at Cairo may be mentioned the great number of ugly dogs which roam about the streets. The Mussulmans do not kill them, though considering them as unclean, but often throw them fragments from their tables ; and devotees even endow charitable foundations of bread and water for the dogs. These animals have also the recourse of the common sewers, all of which, however, does not prevent them from suffering by hunger and thirst; but it is very astonishing that these extremities never occasion madness." The same fact had been previously alluded to by Prosper Alpinus, physician to the Venetian Consulate at Cairo; and it was noticed also by Larrey with regard to the whole of Egypt previous to the French invasion. Since that period, however, according to Drs. Pruner, Amstein, and Punel, it has not been uncommon in those regions. Dr. Burguières-Bey, Sanitary Physician at Cairo in 1857, mentions a number of instances of rabies in dogs derived from animals imported from other parts. In 1862 Sir Samuel Baker, while exploring the Nile tributaries of Abyssinia, recorded the existence of rabies in that portion of Africa. According to Burton the disease is known, though very rare, in El Hejaz, a part of Arabia adjacent to the Red Sea. It was unknown in the Mauritius until introduced in 1821 by a dog from Bengal. In India it was rare until the importation of foreign dogs, but it is now frequently observed there in both animals and men. In Hong Kong, in 1857, a bloodhound imported from England became rabid and bit several people, of whom one died. It was remarked that no case had ever before occurred on that island. Dr. Morehead has found it recently in Bombay, bearing the same ratio to the population as in England, and no less fatal.* The disease is well known to be rare in many Turkish cities which swarm with vagrant dogs acting as scavengers and constantly engaged in combat. The same is true of Lisbon, and, indeed, according to Dr. Souza, the disease is similarly unfrequent throughout Portugal. We are told by Schrader that in 1852, when hydrophobia was causing great ravages along both banks of the Elbe, the islands of that river were entirely free from it. During that memorable epizoötic there were reported in the city of Hamburg alone two hundred and sixty-seven mad dogs. Mosely affirms the disease to be a stranger to the island of Antigua, and Savory pronounces it to be unknown in the island of Cyprus. Rabies was never noticed in Malta until its introduction from abroad, in 1847. Marsden, in his History of Sumatra, regards that island as exempt from the disease. According to Hamilton, the writer on hydrophobia, no rabid animal was ever seen in Madeira, where dogs abound and are afflicted with every other canine disorder. Fleming states that the most careful inquiries fail to show that the disease has ever been witnessed in either Australia, New Zealand, St. Helena or the Azores. Darwin says that it has never appeared in Van Dieman's Land. John Hunter relates that previous to 1783 no case of hydrophobia had ever been known in the Island of Jamaica, where it was there introduced by an affected dog from America. M. Desportes, a practitioner in Hayti from 1732 to 1748, never heard of the disease in that island. M. Liguistin, Veterinary Surgeon-in-Chief of Bazaine's French expedition to Mexico, states in the Journal de Médecine Vétérinaire Militaire for 1867, that rabies was observed frequently in Mexico at that time, *but was almost exclusively confined to dogs imported with the army.*[*] It was first seen in La Plata, South America, in 1806, *having been introduced by English sporting dogs.* According to the account already referred to, given by Prof. Unanue, Proto-medico in Peru during the early portion of the present century, there had existed no record of canine madness in any part of South America previous to 1803, when it became widespread among dogs and other quadrupeds in Peru, assuming the form of an epidemic. It is true that the professor, in his relation of this invasion of epizoötic disease, endeavors to account for it by spontaneity of origin due to long and uninterrupted hot weather, but with very insufficient proof. Like other diseases, both epizoötic and human, communicated only by contagion or actual contact, hydrophobia, as its history well shows, *is liable to assume an epidemic character*, or, as the expression is, "*to rage*" in certain localities, *under conditions ill understood*, *after it has spread by the intercourse of travel.* Its geographical study affords the most cogent arguments against the doctrine of its spontaneous origin.[†]

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* Subsequent to the period of Kane's visit, hydrophobia became epizoötic in Upernavick, the northernmost settlement in Greenland (in Feb., 1860), and proved fatal to all dogs attacked (Hering Jahresbericht über Thierheilkunde—1860). According to Leisering it prevailed in the same place in 1863.

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* According to the Hon. Mountstuart Elphinstone, in Afghanistan it affects wolves, jackals, and dogs, and is attributed to the simoon or pestilential wind.

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[*] I am informed by a friend who, previous to our war with Mexico, took up his residence at San Antonio, Texas, where he remained twelve years, that he never heard of an instance of hydrophobia in that region, although it contained large numbers of hunting-dogs. He himself kept a hunting pack. It was related to him, however, that in 1846 a ranchero near Monterey, Mexico, while sleeping at night in front of his house, was bitten in the finger by a coyote (prairie-wolf), which snapped at him and immediately made off. The wounded man lost no time in chopping off his finger, as it was believed by the natives that wolves acting in that manner were rabid.

[†] "When hydrophobia prevails as an epizoötic—a phenomenon that is often quoted in support of its spontaneous origin—there can almost always be detected upon careful examination one or more central points which serve as distinct depôts or centers of infection. We know, moreover, that the spread of the epizoötic is arrested by the larger rivers. Furthermore, the mere epizoötic and enzoötic appearance of hydrophobia indicates in itself nothing more than the existence of a primary genetic cause; whereas, we know on the other hand that the infectious diseases themselves appear almost invariably in the epidemic and endemic form."—(Otto Bollinger, in Ziemssen's Cyclopædia.)

Another circumstance strongly bearing against this theory is the immunity from rabies experienced by dogs in isolated places. Thus a number of islands have been mentioned as enjoying entire exemption from the disease until its actual importation by infected animals; and it is related that Mr. Meynell, the most eminent English sportsman of the last century, preserved his kennel of hounds from hydrophobia during many years by forcing every new dog to undergo a rigid quarantine of several months preparatory to his admission into the pack. A similar system, could it be universally adopted, would doubtless ultimately result in the extinction of rabies; but at present it is practicable only to a limited extent.*

In regard to season, it has been well demonstrated that whatever influence the weather may exert upon the character or duration of the disease, it has little, if any, power in its production. Rabies prevails indifferently in all seasons. The popular notion that it is most common in summer would seem to have been founded upon the authority of the ancient writers, Dioscorides, Paul Ægineta, Ætius and others, but in reality this opinion is of the greatest antiquity, appearing to have some connection with the *Κυναφοντις ἑορτὴ*, a festival of the Argives, during which large numbers of dogs were slain.

So long ago as 1780, Andry observed that January, the coldest, and August, the hottest months, furnished the least number of cases of rabies which he was able to collect; and at a later period, M. Trolliet, after laborious investigation, asserted that in France the disease was most frequent among dogs in May and September, and among wolves in March and April; and that the fewest cases among dogs occurred, as Andry had stated, in the months of extreme temperature—January and August. There has already been noticed an outbreak of rabies among the dogs of Vienna in 1841, when the largest number of cases were observed in February and May, and the fewest in September, November, and December. In Algeria the disease is most prevalent among dogs in the autumn and winter. The distinguished veterinarian, Professor Bouley, in a communication to the French Academy of Sciences, April 4, 1870, gives the results of an analysis of departmental reports in France for the six years, 1863 to 1868, which exhibit for the spring, 89 cases; summer, 74; autumn, 64; and winter, 75. Professor Röll of the Vienna Veterinary Institute has found the disease more prevalent in mild than in hot summers. Faber, in his Wurtemberg statistics, shows rabies to be there most frequent in March, February, June, and January, and least so in September, October, and August.

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* Schmidt (Zoölog. Klinik, I., p. 362) observes that in the case of wild beasts kept in close confinement for years, hydrophobia is never seen to arise.

Table of Cases of Canine Rabies by Months and Seasons.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bourrel............................	123	109	115	123	112	120	100	114	122	105	94	102	1,339
Vienna Veterinary School.....	..	..	4	1	..	2	1	4	9	10	2	..	33
Pasta..........................	6	4	6	11	16	15	18	8	9	9	7	4	113
Veterinarian..................	3	..	1	..	..	..	1	1	..	..	6	3	15
Blatchford....................	11	10	13	6	12	8	8	5	12	6	8	2	101
New York City*.............	3	1	4	5	5	1	1	2	1	3	3	2	31
Total..................	146	124	143	146	145	146	129	134	153	133	120	113	1,632

	SPRING.	SUMMER.	AUTUMN.	WINTER.	TOTAL.
	March, April, May.	June, July, August.	September, October, November.	December, January, February.	
Statistics given above.........	434	409	406	383	1,632
Paris*.......................	77	74	81	81	313
Lyons*......................	147	121	96	96	460
Toulouse.....................	16	2	11	4	33
Radcliffe.................. ..	30	15	14	23	82
Total..................	704	621	608	587	2,520

The table above set forth is entirely conclusive upon this point, embodying, as it does, the immense number of 2,520 distinct and authentic cases of rabies canina observed in France, Austria, England, and the United States. I have derived these statistics from the following sources: 1,339 cases from figures supplied by M. Bourrel,

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* The figures of Paris and Lyons were kindly supplied me by Professor A. F. Liautard of the New York College of Veterinary Surgeons. Those of New York City have been derived from notes of Coroners' inquests.

Director of the Paris Dog Infirmary (1859 to 1872); from those of Lyons, 460; from various Paris practitioners, 313; from a report in 1865, by Dr. Pasta, upon canine rabies in Milan, Italy, 113; from a report (1856) on the subject by Dr. Blatchford to the American Medical Association, 101, being cases occurring in this country; 82 from Radcliffe's English statistics; 33 from the statistics of the Veterinary School at Toulouse. France (1843 to 1858); 33 from those of the Vienna Veterinary School in 1862; 31 from the statistics of New York City (1856 to 1874); and 15 from the British periodical, the *Veterinarian* for 1870.

The foregoing facts and figures demonstrate the absurdity of repressive laws designed to be in operation only in summer.

As to the influence of hunger and thirst in generating hydrophobia, Dupuytren, Breschet, and Magendie famished a great number of dogs and cats without the production of anything at all resembling rabies; and a similar result attended some cruel but decisive experiments conducted at the Alfort Veterinary School.

We must, therefore, acknowledge our ignorance of any causes concerned in the spontaneous development of this disorder, supposing such an event possible. Prof. St. Cyr, of the Lyons Veterinary School, who has devoted many years to an attentive study of the malady, and whose experience has been immense, does not hesitate to assert that cold, heat, drought, and humidity—in a word, all the meteorological conditions, whatever they may be, are absolutely without any perceptible influence as causes of rabies. *Its reproduction solely by inoculation from one animal to another* is, therefore, the only satisfactory theory left us, and is one, moreover, amply sufficient, as is universally admitted, to account for the vast majority of cases, and in all probability such mode of transmission is responsible for every case.* The most plausible objection to this opinion lies in the suggestion that the disease *must at one time have sprung from a beginning*, which argument, however, when used with regard to *any* contagious disease, can only remove us from the sphere of susceptible proof back to the mysterious and impenetrable domain of original causes.

As I have observed, certain carnivora are particularly prone to hydrophobia, and it has been maintained by many authors that such animals not only develop the affection, *but are the only ones capable of communicating it.* Many well attested facts, however, may be adduced to refute this doctrine. It seems probable that most animals liable to contract the disease are also in a greater or less degree competent, under favorable circumstances, to transmit it, such a mode of propagation being entirely consistent with the general laws of contagion. We do not know of any animal exempt from hydrophobia. As I have mentioned, the ancient Hindoo physician Susruta enumerated dogs, jackals, foxes, wolves, bears, and tigers as among its victims, and this statement has been substantiated in modern times. Cats are well known to be frequently rabid. Aristotle alludes to the camel as suffering from the affection. Aurelianus mentions the dog, leopard, bear, horse, ass, game-cock, and man as subject to the disease and able to propagate it. Boerhaave affirms that the disease has been communicated to others by dogs, cats, wolves, foxes, horses, asses, mules, swine, apes, chicken-cocks, cows, and men. Van Swieten relates an instance of hydrophobia occasioned by the wound from an enraged cock's beak. Hufeland gives a case of a man's contracting the disease from the bite of a badger. In 1824, as I have noticed, many reindeer were seized with rabies in Sweden and Norway, and the disease is frequently observed among deer, and sometimes buffaloes. In the *Veterinarian* for 1864 a case is recorded of a Mr. John Goggin, a Limerick confectioner, dying of hydrophobia from the bite of a pet monkey. In the Boston Medical and Surgical Journal for 1859 appears a case reported by Dr. A. De Jernett, at Greenville, Texas, of a girl bitten by a pole-cat January 8, 1857, in whom hydrophobia manifested itself on February 21, following. This case is analogous to a peculiar form of the disease in skunks, to be presently described. Dr. Blatchford's Report to the American Medical Association contains an instance of hydrophobia in a man resulting from the bite of a raccoon.* Roucher relates that in Algeria a dog has contracted rabies from the bite of a ferret. In 1841 Prof. Eckel, of Vienna, succeeded in conveying the disease from a goat to a sheep ; he likewise successfully inoculated the dog with the saliva of rabid herbivora, as did also the

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* An instance of congenital hydrophobia is related by Callinac (Matton, Donat. Considérations sur la Rage, Strasbourg, 1862). A cow, while suffering from rabies, gave birth to a calf, which was soon likewise seized with the disease, although given another cow to suckle.

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* A curious link between the last-mentioned animal and the dog exists in a brute peculiar to Japan and Eastern Asia. It is so rare that even the British Museum contains no example of it. A specimen, however, has recently been received at the Zoölogical Society's Gardens, Regent's Park, London, having been captured in one of the Russian settlements on the Amoor. In its essential structure it is closely allied to the dog, but its external appearance is more like that of the raccoon. On account of its nocturnal habits, this singular species has been termed "*Nycterentes.*"

French Prof. Renault, of Alfort. Berndt, of Greeswald, inoculated four sheep with the saliva of a mad ox, and they all became rabid. Breschet asserted that he had conveyed the disease to other animals by inoculation with foam from the mouths of rabid horses and asses. Prof. Rey, of the Lyons Veterinary School, caused rabid sheep to bite healthy sheep, who in turn became mad. He also caused madness in an ass by inoculation from a rabid ram. Prof. Tombari, of Turin, reports that at the Veterinary School of that city a horse, a sheep, and two bitches were made hydrophobic by inoculation with the saliva of a rabid heifer. Bourrel, in 1847, inoculated a sheep successfully with matter from a rabid steer. Lessona, in 1852, inoculated two horses and a sheep from a rabid ox. Tardieu mentions that in 1855, in the department of Creuse, France, a shepherd was bitten by a rabid sheep, and soon afterward died of hydrophobia. Youatt cites a case related by Dr. Capella, where a mad rabbit bit a lady and horse, both of whom perished from hydrophobia. Youatt likewise gives well authenticated cases where horses communicated the disease to men and dogs, and one where a dog was inoculated by an ox. Pilwax, in 1868, inoculated a dog with the saliva of a rabid horse. Mr. King, of Bath, England, produced the disease in a hen by means of the virus from a cow, and a similar communication of the disease from an ox to a fowl was effected by Dr. Ashburner, of England. Delafond, in his *Police Sanitaire*, reports a case of direct inoculation from a cow to a man. Fleming, in his *Animal Plagues*, relates a similar case as happening in New York State in 1789. In the Boston Medical and Surgical Journal for 1858 it is related that at Norwich, Conn., while a girl was giving water to a hydrophobic cow, a scratch upon her hand was inoculated with froth from the animal's mouth, producing hydrophobia shortly afterwards. Watson cites instances of horses having been inoculated by eating the straw upon which rabid pigs had died. Prof. Simonds, as we find in the *Veterinarian* for 1839, caused two rabbits to become mad with the saliva of a rabid sheep. It is certainly true that ruminating and herbivorous animals, owing to the formation of their jaws and teeth, as well as to their seldom attempting to bite when rabid, rarely communicate the disease, and hence the belief entertained for some time by such eminent men as Astley Cooper and the veterinary professors Coleman and Renault, that the power to transmit the disease was confined to such animals as naturally employ their teeth for weapons of offence.

Roucher gives an instance of canine rabies in Algeria produced by the bite of a ratel or ferret. Dr. W. Lauder Lindsay, in the British and Foreign Medico-Chirurgical Review for January, 1874, mentions elephants, guinea-pigs, and rats as having been known to suffer from the complaint. He also alludes to a case of hydrophobia communicated from a rat to a man. It is altogether probable that rats not unfrequently contract the disease from dogs or cats, propagate it among themselves, and in turn transmit it to their natural enemies and to other creatures. In this way we can reasonably account for those instances where dogs or cats have become rabid notwithstanding supposed isolation from sources of infection. Bollinger, among various animals subject to the disease, mentions martens, guinea pigs, and antelopes. Finally I may allude to a case recorded in 1793 by Penada, an Italian physician, where a human being was seized with hydrophobia after being bitten by an *insect*. This case need not seem apocryphal when we remember that malignant pustules have been occasioned by stings of flies which must have acted as vehicles for the contaminating element.*

In the American Journal of Science and Arts for May, 1874, appears an interesting article by Horace C. Hovey, of Kansas City, Mo., entitled *Rabies Mephitica*. The author applies this term to a peculiar affection closely resembling hydrophobia, resulting from bites inflicted by different varieties of the *Mephitis*, or skunk. He has obtained particulars of 41 cases occurring in Virginia, Michigan, Illinois, Kansas, Missouri, Colorado, and Texas, *all of which, save one, proved fatal*. He relates two instances also of dogs which perished from the same cause. The history of these cases is curious. The animals usually approach stealthily at night, their characteristic effluvium being suppressed, and inflict the deadly wound on some minor member, as the finger, ear, or nose. In five cases described, rather vaguely, the disease declared itself in from ten to twenty-one days after the injury, a period somewhat long for tetanus and somewhat brief for hydrophobia. In another instance, however, the virus asserted itself after an incubation of five months, and the victim died in terrible paroxysms.

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* Bollinger remarks (Ziemssen's Cyclopædia) that certain parasites, as fleas and lice, which are nourished by the dog, may transfer the poison to human beings and other animals by means of their blood-drawing apparatus. Flies unquestionably convey small-pox, and a case of vaccination by the medium of a flea was reported in the London Lancet, June 22, 1872.

The most interesting question in connection with this subject is in reference to the communicability of the affection by the human species. Cælius Aurelianus relates an instance of a seamstress who became infected by ripping with her teeth the cloak of a hydrophobic patient. Palmarius states that a peasant having the disease, communicated it to some of his children by kissing them. Tardieu relates a case of transmission from a shepherd to a sheep. Eckel produced rabies in a dog by inoculation from a locksmith who had hydrophobia. Two French physicians, Enaux and Chaussier, mention cases where persons have become infected by wiping their lips with napkins previously used by hydrophobic patients. In 1830, Mr. Earl, a prominent London surgeon, while administering medicine to a woman who was suffering from the disease, chanced to be bitten by her, and at once proceeded to cauterize the part. On being taunted with unnecessary timidity, he immediately inoculated a number of rabbits with the woman's saliva, and produced in several of them hydrophobic symptoms and death, while a similar result did not follow inoculation with the normal secretion. The celebrated experiment made by Magendie and Breschet, at the Hotel Dieu, in Paris, in 1813, was no less remarkable. They inoculated two healthy dogs with saliva from a patient named Surlu, who died of hydrophobia a few hours afterwards. One of the animals escaped; the other, carefully secluded, became rabid in six weeks, and having been made to bite several dogs, they soon went mad and infected others still. Hertwig also is said to have successfully transplanted the virus from a man to a dog, and Busnout, Berndt, Löffler, and Renault of Alfort, likewise have demonstrated that the disease is capable of transmission from mankind to the canine race.

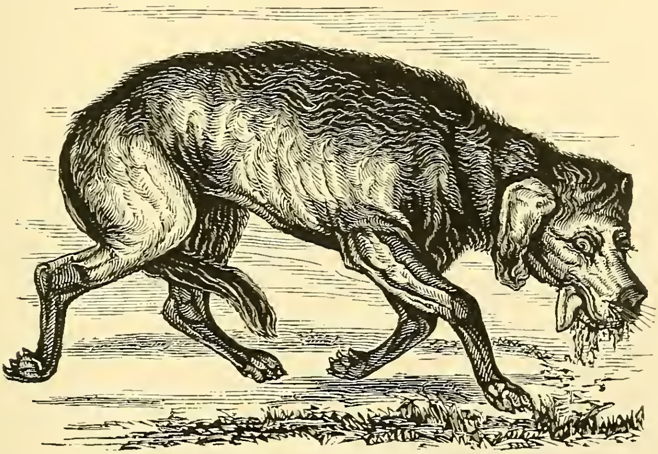
Hydrophobia in the dog has been by some writers divided into two varieties, viz., *dumb* and *furious* rabies, according as the animal is sullen and undemonstrative, or noisy and fierce. Other authors recognize still a third variety, which they term *tranquil* rabies, where the animal is quiet, indifferent, and unaggressive. These distinctions, however, are by no means clear. Virchow denies altogether the existence of any distinct forms of the disease, considering them merely as prolonged conditions or stages, which, according to him, are—1st. The *prodromic* stage, or that of *melancholy*; 2d. The *irritable* and *furious* stage; 3d. The *paralytic* stage.

It is occasionally very difficult to detect the existense of rabies in its nascent state. This accounts for cases of hydrophobia in persons inoculated by dogs supposed not to have been rabid, and which died or were killed before the full development of the disease. Thamhayn has collated 19 cases occurring in the human subject in which dogs, to all appearances healthy, but which subsequently became rabid, produced hydrophobia by their bite. Fortunately, however, the disposition to bite is not apt to be exhibited until the affection is well established.

The disease is first manifested by constant restlessness, uneasiness, disinclination for human society, and irritability of temper—the animal of fondling and sociable disposition becoming snarly, morose, and shy. It is in this early stage that the pet dog especially is dangerous to his human associates, children particularly, who, instead of avoiding him, are liable to annoy him with caresses and attempts at conciliation, or to punish him for his unaccountable peevishness. He evinces a desire to hide from observation, retiring under pieces of furniture, into dark corners, or the interior of his kennel, but frequently changing his position from one place to another. He is continually engaged in licking, scratching, or rubbing some portion of his body. He is usually costive, and occasionally has nausea. His appetite becomes depraved, and he begins to search eagerly for and to swallow the most indigestible substances, as bits of thread, wool, hair, glass, straw, wood, and dung, and he even laps his own urine and eats his own excrement. These symptoms are almost infallible, and the presence of an incongruous mass of such materials in a dog's stomach after death is regarded by most authorities as entirely conclusive of the character of his disorder. Although he may have been naturally amiable, he now takes every opportunity of quarreling with his canine companions, but his strongest antipathy is exhibited against the cat, which he chases and worries whenever she appears. The animal's countenance undergoes a marked change ; that of the docile and affectionate dog assumes an earnest, inquiring, appealing expression ; that of the savage brute becomes the very picture of ferocity. In the early stages of rabies, the dog's attachment for his master appears greatly exaggerated, and he will constantly endeavor to lick his hands, his face, or any part he can reach. As Youatt has observed, females and men, too, are apt to allow their dogs, when in health, to indulge in this filthy and very dangerous habit, and the virus of a rabid animal may thus be readily deposited upon a wounded or abraded surface, and be absorbed without exciting the suspicion of the victim. The dog, if unable to reach the hands of his master, will mumble his foot, or sometimes suddenly seize it in his teeth—then crouch and ask pardon. An early and very characteristic sign of rabies is a peculiar delirium—the animal snaps at imaginary objects floating in the air—*muscae volitantes*—but this hallucination is quickly dispelled by his master's call—he listens attentively for a moment, and then relapses into his mental wandering. About this period some degree of strabismus is common—not that *appearance* of squinting which in *distemper* is produced by the protrusion of the *haw* or *membrana nictitans*—but an *actual* distortion of the eyes, one of which is generally affected more than the other. Twitchings also may be observed about the eye, extending gradually over the cheek and face. Congestion of the conjunctiva likewise occurs. As a rule, before the disease has become well developed, the bark and voice of the animal undergo a remarkable change. His bark, which in health has usually little inflection, now ends abruptly and very singularly in a howl a fifth, sixth or eighth higher than at the commencement—the animal's nose being at the same time raised. Sometimes he will utter a hoarse inward bark, rising slightly in tone at the close. To one acquainted with these sounds, they indicate the disease, however equivocal may be the other signs. M. Bouley relates the following authentic anecdote to show the importance of recognizing this modified bark: Some years since two veterinary students, on their return to the Alfort School about 9 o'clock at night, heard the characteristic howl of a rabid dog proceeding from a house in Charenton. They felt impelled to knock at the door and warn the proprietor of the danger which menaced him; and he fortunately receiving the warning as seriously as it was given, kept the animal, a watch-dog, chained during the night, and the next day conducted it to Alfort. The students had not been deceived; for M. Bouley certified that the dog was mad, and its master could scarcely recover from his astonishment when so informed; he could not believe that the creature he held, still docile, affectionate, and obedient as ever, could be suffering from so redoubtable a disease. Such, nevertheless, was the fact—for undeniable symptoms of rabies soon manifested themselves.

In about a couple of days after the commencement of the disease, the animal often begins to lose control of his voluntary muscles. He snaps eagerly at his food, but frequently misses it, and if it is grasped within his jaws, he either bolts it suddenly or drops it while endeavoring to chew it. This loss of power increases in the muscles of the jaw, tongue, and throat, until the lower jaw becomes dependent, and the tongue protrudes and assumes a livid color. Still, by a sort of convulsive effort, the dog is perfectly able to bite. Up to this time frothy spume or slaver has been constantly driveling over his lips; but now the saliva lessens in quantity and becomes thick, viscid, and glutinous, adhering to the fauces and corners of his mouth. He attempts frantically to detach it with his paws, and being consumed with a burning thirst, he seeks for water, trying assiduously but often ineffectually to lap it, and in his eagerness overturning the vessel containing it. He now becomes insensible to pain; however severely beaten, he utters no cry of distress. In this condition he has been known to seize and munch burning coals, or grasp a red-hot poker firmly in his jaws, or to mutilate himself, without apparent suffering. The animal is now restless, and has a strong propensity to escape from home, to which he will sometimes return after doing much mischief. He wanders savagely about, attacking imaginary objects and venting his fury upon the real ones which he encounters. This period of agitation is sometimes continuous, until paralysis supervenes; but it is more apt to occur in repeated paroxysms, in whose intervals the creature appears exhausted and feeble. He then often lapses into a condition of fitful somnolence, from which he awakes to renew his violence. If confined, he gives utterance to the peculiar bark and howl described. When at large, however, he gives forth no warning noise, but seems determined on a straightforward trot. Stonehenge, in his "British Rural Sports," remarks: "This desire to wander appears to me an instinctive attempt to get rid of the disease by muscular action, and if indulged in quietly, I am inclined to think there might be some chance of a recovery. The disease is evidently caused by some poison, and as in other cases poisons are got rid of by some extraordinary secretion, so I am led to believe that the wearing down of the muscular, and with it the nervous system, by long-continued fatigue, is the natural cure of the disease."

During his peregrinations the mad-dog, if interfered with in any way, and more especially if struck, will wreak his vengeance on the offender; but he seldom, as a rule, goes out of his way to do a mischief, and will often pass through crowds of people without injuring any one. Even if pursued and annoyed by cries and hootings, he usually rather endeavors to escape from his assailants than turn upon them. This, however, is not invariably the case, as a naturally ferocious dog is apt to hunt out his prey diligently and perseveringly, sometimes attacking and wounding many people and animals in his fearful course. A mad dog will usually, as long as he retains the least memory of his former predilections, avoid attacking his master, and refrain from molesting female dogs. The latter fact in a great measure explains the circumstance that the proportion of bitches found rabid is much less than their relative number might be expected to furnish.



RABIES CANINA—LATTER STAGE.

The latter stages of rabies are thus graphically described by Fleming:

"The rabid dog does not continue its progress very long. Exhausted by fatigue, by the fits of madness excited in it by the objects it meets in its way, by hunger, thirst, and also, no doubt, as a consequence of the disease itself, its limbs soon become feeble. Then it slackens its rate of traveling and walks unsteadily; its drooping tail, its head inclined toward the ground, the mouth open, and the protruded tongue of a lead-blue color and covered with dust—all this gives the distressed creature a very striking and characteristic physiognomy. In this condition, however, it is much less to be dreaded than in its early fits of fury. If it is still bent on attacking, it is only when it meets with anything directly in its track that it seeks to satisfy its rage ; but it is no longer sufficiently excitable to change its direction or go out of its course to attack an animal or a man not immediately in its path. It is extremely probable, also, that its fast-failing vision and deadened scent prevent its being so easily impressed by surrounding objects as it previously was.

"As has been said, to each paroxysm, which is always of short duration, there succeeds a degree of exhaustion as great as the fits have been violent and often repeated. This compels the animal to stop ; then it shelters itself in obscure places, frequently in the ditches by the roadside, and lies there in a somnolent state for perhaps hours. There is great danger, nevertheless, in disturbing the creature at this period ; for, when roused from its torpor, it has sometimes strength enough left to inflict a bite. Many people, and particularly children, have perished from hydrophobia through having committed such an imprudent act as disturbing a rabid dog in this condition ; indeed, this danger may have given rise to the old proverb to 'leave sleeping dogs alone.' This period, which we may term the second stage of the malady, is as variable as the first stage, but it rarely indeed exceeds from three to four days. The phenomena we have described insensibly merge into those of the third or last period, when symptoms of paralysis appear, which are promptly followed by death.

"When the disease approaches its termination, and during the remissions in the paroxysms, these symptoms of paralysis become manifest, especially in the hind limbs, which look as if they could not support the animal's weight, and cause it to stagger about ; or the lower jaw becomes more or less drooping, leaving the dry mouth partially open.* Emaciation proceeds rapidly, and the paroxysms diminish in intensity ; while the remissions become less marked. The physiognomy assumes a still more sinister and repulsive aspect ; the hair is dull and standing on end ; the flanks are drawn up ; the eyes lose their lustre, and are buried in their orbits ; the pupils are dilated, and the cornea dull and semi-opaque ; and the strabismus so often present adds still more to the terrifying appearance of the poor creature. The voice is husky, if at all heard ; the breathing is laborious and the pulse hurried and irregular. Gradually the paralysis increases, and the hinder extremities are dragged as if the animal's back were broken, until at length it is general, and is then the prelude to death." The dog becomes comatose, and if permitted to die in peace, perishes, as a rule, from asphyxia.

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* This paralysis of the muscles of the lower jaw is often noticed, as I have mentioned, quite early in the disease.

The progress of canine rabies is always rapid, and its termination almost invariably fatal. Its duration rarely exceeds ten days, and in most instances death occurs in from four to six days after the appearance of the initial symptoms. It may take place at any period of the disease, but small and delicate animals are liable to die in the early stages, and not unfrequently before any unusual appearances attract attention. Persons may be inoculated by such creatures without any apprehensions being excited before the peculiar sensations which usher in hydrophobia are experienced.

With regard to the period of incubation in the dog and other animals nothing has been positively determined as to the length of the interval elapsing between the receipt of the injury and the appearance of the rabies. In the dog Lafosse's experience shows seven days as the shortest and one hundred and fifty-five days as the longest period. According to Röll it varies from three to ten weeks. Youatt states it as from seventeen days to seven months. Blaine affirms that the majority of cases occur between the third and seventh weeks. Some authorities have seen the disease developed within three days. Rénault gives from five to one hundred and eighteen days—the majority, however, are between fifteen and fifty days. According to St. Cyr the interval varies between sixteen and one hundred and fifteen days. Haubner, in two hundred cases, noticed that the appearance of the disease within two months occurred in 83 per cent., within three months in 16 per cent., within four months in 1 per cent. He mentions one instance of eight months and another of fourteen months incubation.

In the cat the incubatory interval would seem to be very brief —ranging from two to four weeks.

In the pig, according to the *Traité des Maladies du Porc* of M. Bénion, it never exceeds eight days. But Haubner affirms that the period varies from nine days to several months, and Gervi has known it to extend to two years.

Peyronie states the minimum time in the horse as fifteen days, and Baudin gives the maximum as fourteen months.

In the bovine race, Haubner, from statistics of two hundred and thirty-four cases, states that 10 per cent. occurred after three months, 8 per cent. after four months. His maximum is nine months.

For the sheep and goat Vatel gives an average of seventy-four days, and Röll of from two to four weeks.

The above are all of the lower animals in which opportunities for investigating the subject of rabific incubation have been afforded on a scale sufficiently large to yield scientific data.

We cannot speak with any greater certainty as to this period in the human species. When the rabific virus has been deposited within the body (usually by means of a wound from a mad animal, but sometimes by simple contact of the morbid saliva with an abrasion), no extraordinary appearances succeed about the point of reception, which seems to heal and cicatrize entirely in a natural manner—usually by "the first intention." At that point, however, the poison remains *perdu*, until at some uncertain period it steals forth stealthily upon its deadly errand.* Watson infers that it may be shut up in a nodule of lymph, or detained in temporary and precarious union with some of the tissues. The duration of this union is in man as in the lower animals extremely variable. According to Thamhayn's statistics † of two hundred and twenty cases of hydrophobia in the human subject, the period of incubation was as follows :

In 2 cases, 3 days.
" 2 " 4 "
" 2 " 9 "
" 3 " 10 "
" 1 " 11 "
" 1 " 12 "
" 1 " 15 "
" 2 " 17 "
" 2 " 18 "
" 4 " 19 "
" 4 " 20 "
" 9 " 21 "
" 16 " 4 weeks.

In 27 cases, 5 weeks.
" 37 " 6 "
" 16 " 7 "
" 8 " 8 "
" 11 " 9 "
" 7 " 10 "
" 5 " 11 "
" 6 " 12 "
" 12 " 13 "
" 3 " 14 "
" 4 " 15 "
" 7 " 16 "
" 6 " 5 months,

In 4 cases, 6 months.
" 3 " 7 "
" 1 " 8 "
" 1 " 9 "
" 2 " 10 "
" 1 " 11 "
" 3 " 12 "
" 1 " 15 "
" 2 " 18 "
" 1 " 24 "
" 1 " 26 "
" 1 after 4 years.
" 1 " 5½ "

According to Trousseau the disease generally shows itself in the human subject in from one to three months after the bite. It is certain, however, that in some instances the poison may remain latent for a very long period, and it is possible that it may, in either man or other creatures, be deposited and continue dormant until natural death. A local disturbance of the cicatrix or some irritation from constitutional causes is probably instrumental in leading to its escape into the general system. The circumstances which more especially tend, it is believed, to hasten the development of the affection are—constitutional debility, previous ill-health, the fright experienced at the time of the injury, fear and anxiety entertained afterwards, venereal and other excesses, exposure to the direct rays of the sun, depressing passions and injury to the cicatrix. A vigorous constitution and absence of all apprehension and causes of mental depression or bodily exhaustion most likely prolong the period of latency, or successfully interfere with the escape of the poison, especially if the quantity deposited has been small. In a minor degree the same physiological and pathological laws apply to the lower animals. There is no doubt that some individuals are very susceptible of inoculation, while others appear to enjoy entire exemption from it. This fact has frequently been noticed in dogs. Figures of the Alfort, Lyons, and Berlin veterinary schools show respectively one-third, one-fifth, and one-eighth infected out of all dogs bitten by other rabid ones. Hertwig inoculated fifty-nine dogs, of which only fourteen became mad. He mentions a dog which resisted for three years repeated attempts at inducing rabies, although seven others inoculated at the same time and with the same saliva succumbed to the affection. As with dogs, so with mankind—for providentially many persons injured by rabid animals remain unaffected. We have one instance, recorded by Thacher, of a footman thrice bitten by dogs manifestly mad (as they infected other animals) who escaped, although refusing all precautionary measures.

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* The action of the poison has been compared by Virchow to that of a ferment, fresh particles of which during their liberation from the seat of injury are being constantly conveyed into the blood, producing through the medium of the circulation the specific effect upon the nervous system.

† Schmid's Jahrbücher, 1859.

Several authentic cases of very extended incubation in man are on record. One in Guy's Hospital, carefully investigated by Dr. Gull, occurred after five years, and Mr. Hale Thomson, in the first volume of the London *Lancet*, relates an instance of seven years latency, the last twenty-five months of which had been passed in solitary confinement. Dr. Bardsley cites an authentic case of a fatal termination twelve years after the infliction of the bite, the evidence being clear and satisfactory. We are not warranted in considering as ordinarily safe a person who has been bitten and has used no preventive measures, until at least two years have elapsed.*

The phenomena of feline rabies are not, on account of the peculiar disposition and habits of the cat, so easily detected and observed as in the other domestic animals. There is reason to be suspicious when the animal becomes gloomy and restless, attacks without provocation, shows a tendency to bite, moves about without apparent cause, is disposed to keep aloof, has a great thirst, refuses food, or exhibits a depraved appetite. Such symptoms should always lead us to confine the creature at once in some place where it can do no mischief. When the disease reaches the furious stage, the original tiger-like character of the animal with all its ferocious instincts is thoroughly restored. There is nothing, says Bouley, more terrible than to see a mad cat in a cage. Its mouth is partly open and foamy —its back arched—its tail beating its flanks—its claws are so rigidly protruded as to cause it to walk with difficulty, and they penetrate and leave their imprint in the floor. When any one presents himself before it, it flies towards him at a single bound, as high as the cage will permit, as if to attack the person's face, for which portion of the body the mad creature, when unconfined, has a special predilection.

Mr. Youatt gives the following description of his encounter with a rabid cat: "A cat that had been the inhabitant of a nursery, and the playmate of the children, had all at once become sullen and ill-tempered. It had taken refuge in an upper room, and could not be coaxed from the corner in which it had crouched. It was nearly dark when I went. I saw the horrible glare of her eyes, but I could not see so much of her as I wished, and I said that I would call again in the morning. I found the patient on the following day precisely in the same situation, and in the same attitude, crouched up in a corner, and ready to spring. I was very much interested in the case, and as I wanted to study the countenance of this demon, for she looked like one, I was foolishly, inexcusably imprudent. I went on my hands and knees and brought my face nearly on a level with hers, and gazed on those glaring eyes and that horrible countenance until I seemed to feel the deathly influence of a spell stealing over me. I was not afraid, but every mental and bodily power was in a manner suspended. My countenance perhaps alarmed her, for she sprang on me, fastened herself on my face, and bit through both my lips. She then darted down stairs, and, I believe, was never seen again." An immediate and thorough cauterization with nitrate of silver saved Mr. Youatt from any unpleasant consequences.

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* The one communicable disease which in its mode of invasion of the system, and in its indefinite period of incubation, bears a peculiarly close analogy to hydrophobia is syphilis—the poison of all other affections dependent upon specific contagion seeming to have a well-defined period of latency. That of the syphilitic virus would appear to be as uncertain as that of the rabific poison. According to Diday, in 52 cases of syphilis (not subjected to treatment) the period of incubation ranged from 25 to 105 days; according to Basserau, the interval between the infecting coitus and the outbreak of syphilitic erythema in 107 cases in which no treatment had been administered, varied from 20 days to five months. Fournier, from an examination of 307 cases, gives an *average* of forty or fifty days. Ricord, as the result of his extensive experience, enunciates the law that when no specific treatment is employed, *six months* never pass without the appearance of general symptoms. Sigmund, of Vienna, in 293 reliable cases, gives a maximum of three months. Cazenave goes so far as to estimate the average interval between the moment of contagion and the development of syphilitic erythema as *two years,* and relates one instance of *ten years;* and Vidal approves this statement. Even Bumstead, who advocates the opinion of a definite period of incubation, makes the following statement: "The earliest symptoms of general syphilis (except in cases of hereditary origin and of transmission through the fœtal circulation) have been preceded by a chancre *probably within three and certainly within six months,* provided mercury has not been given." He also adds that the development of syphilis is hastened by those causes which tend to depress the vital powers. Such circumstances are, as has been remarked, well recognized as instrumental in setting free the latent rabific virus.

Unlike the mad dog the rabid cat no longer retains its former affection for its master—which, in truth, under normal conditions seems to be only a selfish attachment. It will often wander from home and retire to some obscure loft, or out-of-the-way-place, where it is dangerous to molest it. It soon becomes haggard and emaciated—its voice sounds hoarse and sinister, and paralysis and death finally supervene.

It may be instructive to describe the peculiarities exhibited by other animals when laboring under this affection.

The wolf and fox, and, in fact, most wild carnivora, when rabid, become extremely audacious, taking to the fields and roads, entering towns, and without hesitation furiously attacking men, dogs, horses, herds, and flocks. Strange stories are related of the arts to which rabid wolves have recourse in order to accomplish their purpose. They are apt to steal upon their victims unawares, selecting human beings as their peculiar prey, but without attempting to kill and devour those whom they attack. They usually fly at the hands or face, and hence their wounds are much more frequently followed by inoculation than those of dogs who generally snap at the legs, and from whose teeth the rabid saliva is likely to be absorbed by the clothing. According to Niemeyer, of 145 persons bitten by rabid dogs in Wurtemberg, only 28 took the disease. John Hunter relates that 21 persons were bitten by the same dog, and but one contracted hydrophobia; while, as we have seen, Brera mentions the circumstance of a single wolf having communicated the disease to 9 persons out of 13 whom it had bitten.* M. Renault, in a report to the Paris Academy of Medicine in 1852, presented statistics of 254 persons bitten by wolves, of whom 164, or nearly two-thirds, became mad. Hufeland observes that those provinces in which hydrophobia is most abundant are contiguous to forests containing wolves, in Russia, Poland, Germany, the Ardennes, etc.

As death approaches the mad wolf skulks away, and dies blind and powerless in some retired spot.

Martens and badgers when rabid, like foxes, lose their natural shyness, and become bold and ferocious.

In the mad pig the symptoms consist in a peculiar uneasiness, itching of the wound, unnatural squealing, and husky grunt, savageness with a disposition to bite, gaping, salivation, often depraved taste, and exaltation of the sensitive function of the skin, finally marasmus, paralysis, and death.

In the horse the disease commences with restlessness, biting at the seat of injury, frequent change of position, sudden starts as though frightened, irascibility, and great susceptibility to external influences. The ears are constantly in motion, as though listening to strange sounds, and the animal seems subject to hallucinations. The eye is very sensitive to light, the pupil dilated, and the gaze fixed. In stallions and mares the venereal desire is increased. As the disease progresses there are noticed cutaneous quiverings, soon followed by convulsions. Loss of appetite and difficulty in swallowing are common. Paroxysms of rage occur, excited particularly at sight of a dog, when the horse kicks and paws viciously, and bites so furiously at any object within its reach that it sometimes breaks its teeth or its jaws. It even bites its own body. Respiration is accelerated and the voice is hoarse and disagreeable. There is rarely much salivation. The animal rapidly becomes emaciated, and sinks. There ensues paralysis of the hind quarters, causing it to maintain the recumbent position. Convulsions and general paralysis are the final symptoms.

The early symptoms in the bovine species are lessened or depraved appetite, restlessness, excitability, tremblings, constant salivation, augmentation of sexual desire, difficulty in swallowing, manifestation of disagreeable sensations at the seat of the wound, and mental delusions. Paroxysms occur as in the horse, when the eyes are staring, brilliant, and congested, the mouth hot and foamy, the voice altered to a dull, hoarse sound ; the animal is very excited, bellows frequently, agitates its jaws, paws and kicks, or falls down, rolls about, and endeavors to get away from its fastenings. It frequently exhibits a desire to attack ; strikes at obstacles with such fury that its horns are often fractured, and its forehead dreadfully contused. Rumination and lactation are suspended. Great emaciation, paralysis of the posterior extremities, inability to stand, and profound coma finally terminate the animal's existence. There is seldom any disposition to bite.

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* It is recounted in the *Dictionaire Encyclopédique des Sciences Médicales* that in the village of Ewanguliezenvic, Russia, a single mad wolf bit 35 men and 23 women, of whom 24 men and 15 women succumbed to the disease. Dr. Michel, of Salie, Turkey, relates that in 1852 a rabid wolf there bit 47 persons, of whom 45 died of hydrophobia.

In the sheep and goat the symptoms are almost identical, save that in the former the desire to bite is much more prominent than in the latter. Loss of appetite, cessation of rumination, itching of the wound, and unusual sexual excitement* are the initial phenomena. These are succeeded by agitation, modification of voice, with a sort of dull bleating at intervals, staring and congested eyes with dilated pupils, and very abundant nasal and salivary secretions. In the paroxysms the beast leaps, paws, grinds its teeth, and butts wickedly at any animal or object within its reach. The sheep almost always endeavors to bite people, animals, and utensils, and will even attack dogs with great fury. Emaciation, debility, paralysis, great discharge of nasal mucus, convulsions, and death complete the last stage.

Fowls manifest the disease by similar nervous excitability and restlessness. They seem to have hallucinations, and perform frenzied movements ; seek shelter from the light ; their voice becomes husky ; they are often aggressive, employing their natural weapons, and even attempting to bite. Staggering, convulsions, and paralysis indicate the approach of death.

Deer when rabid foam at the mouth, worry one another like dogs, tearing off each others' hair and flesh, and, when confined, bite at whatever comes within their reach.

Observations at the veterinary schools of France and Germany have shown that in animals the temperature from the commencement of the disease is elevated, and is coincident with the rapid waste of tissue. The few observations recorded in cases in human subjects exhibit the same phenomenon. In one of the Nottingham cases mentioned in the British Medical Journal for December, 1871, the temperature before dissolution had risen to 106.2°. Drs. Aug. Vielé, A. M. Hamilton, and myself were recently (June 25, 1874) invited to visit a Mr. McCormick who was suffering from hydrophobia. We saw him two hours before death. His temperature had unfortunately not previously been observed; but at that period we found it to have risen to 104.2°.

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* This same symptom noticed in various animals is frequently present in human beings affected with hydrophobia. Boerhaave remarked it in men (satyriasis), and it was mentioned by Galen. According to Trousseau, nymphomania has sometimes been witnessed in women suffering from the disease.

The urine in both animals and men undergoes a marked change. M. Gubler of the Beaujon Hospital has shown it to contain an excess of earthy phosphates and carbonates, with renal epithelium, and an abundance of albumen—reaction acid—sugar not unfrequently present.*

The autopsical appearances in hydrophobic animals are variable and non-distinctive. Bruckmüller, after the most careful post-mortem examinations of 375 rabid dogs during a period of twenty years, arrived at the conclusion that the evidence furnished by dissection is of no value in defining or distinguishing the affection, and is worthless as a foundation for any theory. In man,† moreover, the most careful

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* In l'Union Médicale, 1869, there is mentioned the autopsy of a person who had died from hydrophobia, whose salivary glands were examined by Ordonez, who found in their secretion crystalline elements (*éléments cristallins*) never before observed by that able microscopist.

In Schmidt's Jahrbücher, 1859, it is stated that there has been noticed in the latter stages of the disease a considerable augmentation of the white corpuscles of the blood.

† The case of McCormick, just mentioned, has since assumed peculiar interest on account of certain lesions reported by Dr. Wm. A. Hammond as having been discovered by him during a microscopical examination of the nervous centers. These were: Fatty degeneration of nerve cells in the cortical substance of the brain, in the roots of the pneumogastric, hypoglossal, and spinal accessory nerves, and in the upper portion of the spinal cord. Dr. Hammond considers these appearances almost identical with those in two cases examined by Dr. Clifford Allbut and reported to the London Pathological Society in 1872, in which that observer stated that there had been noticed throughout all the cerebro-spinal centers in different degrees, congestion, hæmorrhages, fibrinous exudations, and "little gaps caused by the disappearance of nerve-strands which had passed through the granular disintegration of Clarke." Dr. Hammond regards his own observations as of peculiar "scientific value in determining the pathogeny of hydrophobia." I am unable to agree in his conclusions for the following reasons:

1st. Even admitting (which I do not) that the lesions which he reported were almost identical with those described by Allbut, a number of other equally minute microscopical examinations of the nervous centres and principal nerves implicated have been made in similar cases by experienced observers, *without the detection of any abnormal appearances* in some instances, and only of intense congestion in others. The conclusion, therefore, seems irresistible that the morbid changes noted are not *essential* and *primary* factors in developing the train of symptoms, but are in all probability *secondary lesions*, resulting from the terrible disturbance which the disease causes in the functions of the respiratory, vascular, and nervous systems. Such phenomena could examination of those who have perished from hydrophobia have proved similarly inconclusive as to the pathogeny and exact character of the disease.*

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hardly, therefore, be of any value in determining the pathogeny of the affection any more than are a thousand and one other morbid changes seen in various organs after death by hydrophobia, and which are well recognized as being merely *consequential and non-uniform lesions.* The eminent German veterinary professor Bollinger, in a recent treatise upon hydrophobia (Ziemssen's Cycl.), does not hesitate to deny emphatically that any post-mortem observations yet made upon either man or beast are of any value whatsoever in tending to elucidate the pathogenic process of hydrophobia. He adds, moreover, that in herbivorous animals especially *there is a complete absence of all characteristic changes.*

2d. Granular and fatty degeneration of the nerve cells are not uncommon pathological appearances in chachectic conditions of the system which do not present any very definite symptoms. Such conditions might therefore *in some cases* precede the development of hydrophobia without, however, exerting more than an *auxiliary* influence in its production.

3d. Very extensive post-mortem researches have been made in cases of rabid dogs without any satisfactory results. I have already alluded to Bruckmüller's investigations. According to Röll, a distinguished German authority, the cadaveric lesions observed in canine rabies offer a certain similarity to those which are the consequence of acute poisoning by narcotic substances. In this connection I may say that upon visiting McCormick two hours before death, he appeared both to Dr. Hamilton and myself laboring decidedly under the narcotism of atropine, of which, as I was then informed by the attending physician, Dr. Hadden, several large doses had been administered.

The most recent pathological investigations of hydrophobic cases fail to throw any farther light upon the question whether the lesions detected in the nervous centers are *pathognomonic* of the disease, or are merely changes such as might be due to tetanus or any other affection producing intense disturbance of the nervous system. Benedikt, of the Vienna Imperial Veterinary School, availing himself of a long-continued epizoöty of rabies in and around Vienna during 1873–4, has made numerous preparations of a number of animals which were affected. The pathological changes were studied by making seven separate vertical sections through the hemispheres; and the alterations were so striking that Benedikt is of opinion they could have been overlooked only through imperfect methods of investigation.

In the first place he notes an abnormal distension of the meningeal vessels, and the accumulation around them and in the meshes of the pia mater of inflammation corpuscles, together with a nucleated exudation. This was strongly refractive of light, was colorless, and under high magnifying powers, was seen to consist of punctiform nuclear substance (granular disintegration). Striking changes were observed in the gray matter of the convolutions and in other parts of the nervous centers. One of the coarser changes was the presence of numerous holes or spaces, which, when magnified 80 or 90 diameters, were seen to be filled with a material which also refracted light. This mass, under high microscopic powers, consisted of a granular or nuclear substance, in which were single hyaloid and colorless corpuscles of the size of the distended nucleus of a blood corpuscle. Inflammatory corpuscles were to be seen in both masses. In the larger spaces nerve-cells were found. Benedikt further describes a peculiar condition of the hardened brain, especially in the finer sections. The slightest pressure forced out upon the surface shining masses which proved to be myelin (colloid?). These were often found lying detached on the surface of the section and presented a greenish lustre. He states, however, that *he has seen the same in the spinal cord of a horse which had suffered from rheumatic tetanus*, and regarded it as a softening and chemical alteration of the cord.

Meynert has also lately made a microscopical examination of the nervous system of two children who died from hydrophobia. The blood-vessels of the spinal cord were distended, and their walls were undergoing amyloid degeneration; and the adventitious tissue of some of them showed nuclear proliferation. A portion of the fibres was surrounded by tumefied resisting medullary substance, which was partially in a state of degeneration, and the cylinder-axis had disappeared. *These alterations were most conspicuous in the lumbar portion of the cord.* The connective-tissue of the posterior portion of the cord was hypertrophied by an excessive enlargement of the stellate bodies. Its vessels were engorged and in a state of partial amyloid degeneration. Molecular and sclerotic changes had taken place in the nerve-cells of the cortical matter. *Meynert considered the spaces or holes observed by Benedikt as a result of the process employed in preparing the specimen for examination.*

* Hallier affirms that he has discovered in the blood of hydrophobic animals a micrococcus, which, when cultivated, is transformed into a cryptogam, to which he gives the name Lyssophyton. I am afraid that this discovery, like others of the indefatigable Hallier, must be accepted *cum grano salis.*

The nature of the subtile rabific virus is likewise unknown, and no chemical or microscopical investigations have yet detected in the slaver of a rabid animal any abnormal constituent. Trolliet maintained that the saliva *per se* possesses no contagious quality—only so when mixed with the frothy material driven out from the bronchi which constitutes the vehicle transmitting the virus. His opinion was founded upon the absence of any evidence of disease in the salivary glands, upon the morbid changes always existing in the bronchi, and upon analogies furnished by other contagious diseases, as gonorrhœa, small-pox, or syphilis. His distinction, however, is of no practical importance. Magendie considered that he had demonstrated the non-inoculability of the disease by any other material of the animal's body than the saliva; but Hertwig has since apparently proved by experiment that the blood, and therefore most of the tissues, contain, to some extent, the poisonous element. Hence the necessity of careful sanitary supervision over the bodies of all hydrophobic animals. The saliva, as demonstrated by Hertwig, retains its noxious properties for at least 15 hours after death, and it is asserted by Schenck that the disease has been produced by wounds from sabres with which rabid dogs had been dispatched years previously.

It is very important to note the difference between rabies and some other diseases with which it is liable to be confounded.

The affection which most nearly resembles rabies in its manifestations, particularly when it assumes an epizoötic character, is *anthrax*, a special malady which appears in several forms and attacks all creatures, though it would seem to be developed principally and, perhaps, primarily in the herbivora and the pig. In some situations and at certain outbreaks it has presented so many features of similarity to rabies that experienced observers have mistaken the one disease for the other. More especially has this been the case in that variety which has been designated "anthrax fever," "splenic fever," or "typhus" in the horse, which is often attended with such marked symptoms of fury that it has been termed by some German authorities "*anthrax madness*" (milzbrand wuth); and several writers, as Van Heim and Adolphi, have even regarded it as identical with rabies. H. d'Arboval says: "We have seen animals in which the anthrax tumors, especially when they formed in the throat, pharynx, or larynx, give rise, some time before death, to symptoms of frenzy and hydrophobia."

Hensinger observes that there is undoubtedly a type of *intermittent fever in man* having some relation to anthrax, in which not only hydrophobia and aphagia, but also at times all the symptoms of rabies are present. This is called "*febris hydrophobica*," and Faber is reminded by it of a similar epidemy which broke out among the German soldiers after the conquest of Rome, A. D. 553. Bollinger alludes to the theory which refers the epizoötic outbreaks of hydrophobia to a peculiar miasma.

On account of the analogies between anthrax and rabies, attempts have been made to establish their closer identity by referring to their localities of origin, anthrax being usually regarded as of malarial source ; but facts have not sustained this theory.

There is no doubt that simultaneous epizoöties of anthrax and rabies have, at various periods, occurred among dogs and other animals in different portions of Europe, and that it has sometimes been exceedingly difficult to distinguish the two diseases. Under ordinary circumstances, however, the differential diagnosis is easy. The appearance of carbuncular tumors and ecchymotic spots, the terrible rapidity of the successive stages, the immediate prostration, the tendency to gangrene, the passage of bloody stools, the yellow hue of the visible mucous membranes—all these are assuredly sufficient to establish the presence of anthrax fever, notwithstanding that other symptoms similar to those of rabies may be present. The pathological appearances, moreover, in anthrax are peculiar and characteristic, while, as we have seen, those of rabies are inconstant and indefinite. After death by the former the animal's body is in a state of immediate putrefaction—the blood is black and thick like pitch—the spleen is enlarged from the presence of enormous tumors—there is infiltration of the mesenteric glands—hæmorrhagic effusions are noticed in the intestinal tube, cellular tissue, serous cavities, and muscular interspaces—the Peyer's plates are generally inflamed and sometimes ulcerated.

According to Lafontaine, in certain countries from the source of the Vistula to the Carpathian mountains, there is a curious disease named the *Plica Polonica*, which attacks dogs, wolves, foxes, sheep, cattle, horses, and human beings. When it seizes upon the canine race they are said to exhibit symptoms closely resembling those of rabies, and are frequently destroyed under the impression that they are mad. They carry the tail between their legs, foam at the mouth, bite every one whom they meet, even their owners, lose their appetite, appear to be blind, run against walls, and drink more than usual. Their bite, however, has never been known to be followed by hydrophobia. The hair over the body becomes matted from the development of a vegetable parasite.

A very ordinary affection of dogs, often popularly confounded with rabies, is *epilepsy* or "fits." An epileptic fit comes on suddenly without any preliminary indisposition—the animal falls upon the ground, emits cries of distress, struggles violently, loses his consciousness, and often foams at the mouth. His jaws are agitated, but he makes no premeditated attempt to bite. The attack is of brief duration and the animal quickly returns to his normal condition.

Another disorder to which young dogs are subject is called "*puppy fit*." The creature, who has been perfectly well, suddenly loses his ordinary perception—turns about several times, and if in a room endeavors to escape in an incoherent manner by the door or window; he pays no attention to his master's voice, and if in the open air, he ends by rushing blindly away at full speed, until exhausted he falls down panting and with lolling tongue in some corner or other retreat where he soon entirely recovers from his derangement.

An unfortunate dog, happening to exhibit either of the last mentioned conditions (which, unlike rabies, occur most frequently in summer), is almost certain to be destroyed as a "mad dog," and to receive the customary obituary notice in the daily journals.*

Simple epidemic influenza in its incipient stage has occasionally been mistaken for commencing rabies; but there can be no question as to diagnosis when the former affection has become well established.

The presence of a foreign body in the throat or mouth (as a piece of sharp bone) will sometimes cause a dog to behave in a manner that may lead to a suspicion of hydrophobia. He will refuse food and water, or swallow with difficulty, and become restless and irritable. His voice will change, he will cough constantly, and he will have abundant salivation. He will continually strive to remove the obstacle with his paws—a very common act with the rabid dog seeking to get rid of the viscid mucus in his throat and mouth. The suddenness of his strange behavior—his evident anxiety to be relieved—the absence of delirium and aggressiveness—are sufficient to indicate the real trouble. The foreign body can usually be seen or felt, and when it is removed the creature immediately ceases his unwonted actions.

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* According to Faber, out of 892 dogs which, between 1826 and 1830, were brought into the Veterinary Institute at Vienna, suspected of being rabid, only 31 proved to be so actually. Prof. Pilwax of the same establishment found in 1862, that out of 552 dogs brought to him for examination, all save 32 proved to be free from the disease. The majority of these animals had bitten people. At that time rabies was epizoötic in Austria. During fourteen years previously, some 5,000 suspected, but non-rabid dogs, who had bitten people, had come under the professor's observation. He remarks, "Not one of the persons so injured by them has had hydrophobia. If the bite of a non-rabid dog is capable of inducing hydrophobia, surely a large number of these people must have been affected and have perished."

It is unnecessary to more than mention various other complaints easily recognizable by experts, but whose initial symptoms may be confounded by the ignorant with those of rabies. These are tetanus—distemper or typhus—fever-worms in the intestines, nostrils, or frontal sinuses—and canker of the ear. In the words of Fleming, "To distinguish rabies from the other maladies and accidental conditions we have just enumerated, the peculiarities exhibited in the course of the disease, and which have been alluded to in detail, ought to be kept in memory; more especially the nervous and mental phenomena—the great anxiety, restlessness, irritability, and hallucinations, even while the animal's mind is as yet but little affected; also the peculiar bark or howl, tendency to rove, depraved appetite, desire to bite—and with a purpose—the subsequent paralytic symptoms, and the difficulty in swallowing."

The question of what precautionary measures against hydrophobia are practicable, efficient, and humane is one of particular interest to city sanitary departments, whose chief province must always be the prevention of disease. How to deal with the canine race, whose intimate relations with man expose him so frequently to rabific infection, is a subject arising annually as the warm season approaches, and is certainly one of peculiar importance to the community. The only precautions hitherto adopted in this city by municipal ordinances* have been the traditional muzzling of dogs and the destruction of canine vagrants. The propriety of the latter measure must be obvious to all. Muzzling, however, is of very questionable utility, being both injurious to the poor brutes upon which it is imposed and without efficiency in protecting the public against the danger intended to be thus averted. It has, nevertheless, become so general a practice in

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* The following regulation exists in London. It forms part of "An Act for regulating the Traffic in the Metropolis, and for making Provision for the greater Security of Persons passing through the Streets, and for other purposes" (20th August, 1867, 30 and 31 Vict., cap. 134): "18. The Police may take possession of any Dog found in any Street within the Metropolis, and not under the Control of any Person, and may detain such Dog until the Owner has claimed the same and paid all Expenses incurred by reason of such Detention. The Commissioner of Police, if he see fit, may issue a Notice requiring any Dog, while in the Streets, and not led by some Person, to be muzzled in such a manner as will admit of the Animal breathing and drinking without Obstruction; and the Police may take possession of any Dog found loose in the Streets without such Muzzle during the Currency of the Order, and may detain such Dog until the Owner has claimed it, has provided a proper Muzzle, and has paid all Expenses connected with such Detention. Where any Dog, taken possession of by the Police, wears a Collar with the Address of any Person inscribed thereon, a Letter, stating the Fact of such Dog having been taken possession of, shall be sent by Post to the Address inscribed on the Collar. The Commissioner of Police may cause any Dog which has remained in the Possession of the Police for Three clear Days

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without the Owner claiming the same, and paying all Expenses incurred by its Detention, to be sold or destroyed. Any Moneys arising from the Sale of any Dogs, in pursuance of this Section, shall be applied in the Manner in which Penalties under this Act are applicable. When, upon Complaint that any Dog has bitten or attempted to bite any person within the Metropolis, it appears to Magistrates having cognizance of such Complaint that any such Dog ought to be destroyed, the Magistrate may direct the Dog to be destroyed, and any Police Constable may destroy the same accordingly, and all Dogs detained by the Police under this Section, shall be properly fed and maintained."

The New English Dog Act, published on the 24th of July, 1871, and entitled "An Act to Provide Further Protection against Dogs," is applicable to the whole of Great Britain. It is as follows :

"Whereas, It is expedient that further protection should be provided against dogs.

Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords, Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :

1. From and after the passing of this Act any police officer or constable may take possession of any dog that he has reason to suppose to be savage or dangerous, straying on any highway and not under the control of any person, and may detain such dog until the owner has claimed the same and paid all expenses incurred by reason of such detention.

Where the owner of any dog, taken possession of by any constable, is known, a letter, stating the fact of such dog having been taken possession of, shall be sent by post or otherwise to the owner at his usual or last-known place of abode. When any dog, taken in pursuance of this Act, has been detained for three clear days, where the owner is not known, as aforesaid, or for five clear days where he is so known, without the owner claiming the same and paying all expenses incurred by its detention, the chief officer of police of the district in which such dog was found may cause such dog to be sold or destroyed.

Any moneys arising from the sale of any dogs, in pursuance of this section, shall be paid to the account of the local rate, and be applied to the purposes to which that rate is applicable.

All dogs detained under this section shall be properly fed and maintained at the expense of the local rate.

2. Any Court of Summary Jurisdiction may take cognizance of a complaint that a dog is dangerous and not kept under proper control, and if it appears to the Court having cognizance of such complaint that such dog is dangerous, the Court may make an order, in a summary way, directing the dog to be kept by the owner under proper control or destroyed ; and any person failing to comply with such order shall be liable to a penalty not exceeding twenty shillings for every day during which he fails to comply with such order.

3. The local authorities may, if a mad dog, or a dog suspected of being mad, is found within their jurisdiction, make, and when made, vary or revoke, an order placing such restrictions as they think expedient on all dogs not under the control of any person during such period as may be prescribed in such order throughout the whole of their jurisdiction, or such part thereof as may be prescribed in such order.

Any person who acts in contravention of any order made in pursuance of this section shall be liable to a penalty not exceeding twenty shillings

Due notice of such order shall be published at the expense of the local rate.

The provisions of this Act contained as to the detention and sale or destruction of dogs found straying on the highway shall apply to dogs found at large in contravention of any order made in pursuance of this section.

4. In England and Ireland any penalty under this Act may be recovered in manner provided by the Summary Jurisdiction Act, and in Scotland all such penalties shall be prosecuted and recovered before a Court of Summary Jurisdiction, under the provisions of the Summary Jurisdiction Act, 1864."

every country where enactments against injury by dogs have been in vogue, that its usefulness has come to be regarded as an established fact, to deny which is, in the eyes of some, almost criminal. Many of the most distinguished veterinarians, however, men who have enjoyed unusual opportunities for investigating the matter, regard this contrivance as most pernicious and unnecessary. Those who believe in the occasional spontaneous production of rabies consider the muzzle as capable in itself of inducing the disease in the animal to which it is applied. In one portion of this report I have endeavored to prove that the affection is invariably the consequence of inoculation. Such being the case it might seem that the wearing of a muzzle could exert no influence in the production of rabies. Supposing an animal never to have been exposed to contagion, this may be admitted as a fact; but, considering the chances of any dog having been bitten by a rabid animal, without the knowledge of its owner, the question arises in another form. It has been well demonstrated that, in the case either of man or beast thus injured, any serious functional derangement, and particularly impairment of the nervous system, is directly instrumental in disturbing and liberating the rabific virus from its local tissue-union in the cicatrix, when, under ordinary conditions of health, the period of incubation might have been indefinitely prolonged. Now, it cannot be denied that every muzzle more or less embarrasses the respiratory function and buccal transpiration of the creature wearing it, and creates frequently a condition of great nervous disorder in an animal of such peculiarly excitable temperament as the dog. I have no doubt, therefore, that its use sometimes leads indirectly to the development of rabies, and thus renders dangerous an otherwise inoffensive brute.

The affection, moreover, is not one which, like the canine epileptic attack, appears suddenly and unexpectedly. A dog in the premonitory stage of constant restlessness, snappishness, and disinclination for human society, presents conditions inconsistent with his owner's taking him into the streets, which conditions naturally become more marked as the disease advances. When at home, he is almost always unmuzzled, and if rabid, is dangerous only to his companions. He soon, however, is seized with a propensity to escape from home, under which circumstances he is not apt, although so intelligent a creature, to present himself for muzzling as a preliminary to his elopement.

The chief evidence in favor of the muzzle is that brought forward from the experience of its use in Berlin. From 1845 to 1853 there were reported in that city 278 cases of canine rabies. From March, 1852, to the same month in 1853, there were sent to the Berlin Veterinary School 82 mad dogs, and by the end of July 37 more. On the 20th of July it was ordained that muzzling should become general, and up to the close of the year only 6 cases were admitted into the Veterinary School. In 1854 and 1855 the number was but 1, and from that time up to 1863 there were no cases. These figures were supposed to establish the utility of the practice, but during the next year (1864), and up to the middle of 1865, some 30 cases occurred, in spite of the fact that all dogs in the city were wearing muzzles.

According to Prof. Lafosse of the Veterinary School at Toulouse, France, a city where the use of the muzzle is not obligatory, years frequently elapse without any cases of rabies being there noticed. The veterinary authorities of Brussels, in an excellent report on rabies, drawn up in 1868, when the disease was creating some alarm in Belgium, were forced from their experience to disagree with the Berlin authorities as to the value of the muzzle either in preventing rabies or protecting human life.

There is a special absurdity, likewise, in the policy of relaxing municipal surveillance over dogs during three quarters of the year, and maintaining it stringently in only the summer months, when, as Mayo has observed, the dog is popularly supposed to be subject to a species of lunacy having the same relation to Sirius that human insanity has to the moon. This opinion can be respected only on account of its antiquity.

The means at our disposal for protecting the public against injury by dogs have for their principal object to diminish the number of worthless and vagrant curs. This decrease may be accomplished by the taxation of all dogs having owners, and the destruction of all having none. The measure of taxation has been shown in several European countries to be very efficacious in ridding the community of a vast number* of useless and dangerous brutes, but to be really efficient the tax should be general and high, particularly in the case of pleasure and sporting dogs.

Every dog, moreover, should be obliged to wear a collar with a metal plate bearing the name and address of its owner, as well as some peculiar mark or badge issued by the municipality to indicate that the tax has been paid.* In case such a tax were authorized by the Legislature, the Boards of Health might be empowered to grant permits for keeping dogs under the conditions specified.

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* Boudin has estimated the number of dogs in Europe as more than twelve millions, and the price of their food as at least five hundred millions of francs. Delafond estimated the number in France in 1846 at from three to four millions. In Bavaria there are 300,000 dogs to 4,800,000 human beings.

At Strasbourg, France, before the late war, there prevailed an excellent system of this kind. Every person possessing a dog was required to notify the police, who furnished him with a license, duly numbered and registered. The same number, with the owner's name and address, were inscribed on the animal's collar. A covered conveyance with compartments was constantly patroling the city in order to pick up all wandering dogs, which were taken to a building permanently devoted to the purpose. They were kept there for three days, and if then unclaimed were destroyed. During this period an owner might reclaim his dog upon payment of fifteen francs. The result of this system was extremely satisfactory, as hydrophobia became almost unknown.

The collar is also useful in case of any damage inflicted by dogs. The French Civil Code ordains that "the proprietor of any animal, or he who employs it, is responsible while it is in his employment for any damage it may cause while in his charge, or when straying or escaped."

At a recent meeting of the French Academy of Science there was presented a memoir by M. Bourrel on a new method of protection against rabies. M. Bourrel proposes as a preventive measure, taking off the edge and points of the twelve permanent incisors and four canine teeth by means of nippers and files. He asserts and has proved by experiment that this operation renders the dog virtually incapable of inflicting wounds on men or animals; there is no subsequent derangement of health; the creature eats and digests as well as before; the teeth are no more exposed to caries than they would be naturally; the lips conceal them, and the dog's beauty is unimpaired. In the case of home and pet dogs this operation might be recommended as a useful measure. I may allude briefly to some of the more obvious precautions against hydrophobia.

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* Such a distinctive badge is used in Holland. Max Du Camp states: "At Harlingen, in Friesland, I saw a dog pass which had a wooden cross hanging at its neck; then a second dog and a third; and finally I observed that every dog in the town was decorated with a similar ornament. Making inquiry respecting this matter, I was informed that all dogs not wearing the cross were, in the canton of Harlingen, immediately apprehended and led by the ears to the pound; for the crosses are issued by the municipality, and their possession proves that the tax imposed upon such animals has been paid."—*En Hollande*, Paris, 1859.

A dog manifesting any morbid or unusual symptoms should be carefully observed,* kept apart from other animals and from human beings, children particularly, and the utmost care should be exercised in attending to and feeding it. A dog evincing constant restlessness, an altered or threatening demeanor, snappishness, depraved appetite, a modified bark, and salivation, should demand extraordinary vigilance. If a person has been bitten by an animal with unquestionable symptoms of rabies, it should be destroyed at once ; but if wounded by one merely conjectured to have the disease, it is advisable *not to kill it immediately, but to confine it closely under strict surveillance until the suspicions shall be allayed or positively confirmed.* Such a measure will occupy but a few days and may save from much apprehension persons of very nervous excitability. As it is usually difficult and dangerous to attempt the precautions mentioned in one's own home, the establishment of well-regulated dog infirmaries in all cities is very desirable. In such places, moreover, valuable and esteemed animals suspected of the disease, or which may have been in contact with rabid dogs, can be readily kept under observation for a period sufficiently long to insure almost complete safety. This sequestration should extend to *six months at least.*

All animals bitten by dogs supposed to be mad should as quickly as possible receive those attentions which are recognized as most effectual in destroying the rabific virus, or preventing its absorption. Mr. Youatt, the very best authority upon this subject, relied exclusively upon a thorough cauterization of the wound with nitrate of silver. With this simple treatment he was successful in over 400 instances in the human subject, and in innumerable cases of dogs; in his own person, moreover, as he was frequently bitten by rabid dogs, and once severely by a mad cat.

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* The Austrian Penal Code (387) says : "Whoever knows of a dog or any other animal showing the distinctive symptoms, or symptoms which warrant suspicion, of rabies, and who neglects to report the same to the police, is guilty of infraction of the law and liable to imprisonment. In case of the appearance of the disease and the biting of men or of animals, the culprit shall be punished with from three days to three months' imprisonment (*carcere duro*). If a serious wound or the death of a human being has been the consequence of this negligence, the infraction shall come under the application of 335, which says : 'He who shall be guilty of this negligence shall be punished with from one to six months' imprisonment, if its consequence has been a serious wound ; if the death of a man has been the consequence, the penalty is from six months to a year's close imprisonment. Otherwise, the proprietor is always responsible for the damage caused by mad animals.' "

The same Code (391) says : " Every owner of an animal, no matter to what species it may belong, which he knows to be vicious, ought, in or out of doors, to watch and take care of it, so that it may not wound any one. Any damage caused by the neglect of this precaution is punishable by a fine of from five to twenty-five florins, if there has been no wound inflicted ; but when this is the case, the penalty may be increased to from ten to fifty florins."

The French Civil Code ordains that " the proprietor of an animal, or he who employs it, while it is in his employment, is responsible for the damage that it causes, either while in his charge or when it is straying or escaped."

Finally, all rabid animals, after death, should be covered with quicklime, and buried at a good depth below the surface of the ground, or, better still, should undergo cremation. They should never, as is frequently done, be thrown into ditches, ponds or streams. Every substance which they have been likely to contaminate should be consigned to the flames or soaked in some powerful disinfectant.

Respectfully submitted,

CHAS. P. RUSSEL, M.D.,
Sanitary Inspector.

REPORT OF THE SANITARY COMMITTEE

ON THE

CONCENTRATION AND REGULATION OF THE BUSINESS OF SLAUGHTERING ANIMALS.

PRESENT LOCATION OF SLAUGHTER-HOUSES.

There are in the City of New York, below One Hundred and Tenth street, fifty-four private and independent slaughter-houses.* They are located on and east of First avenue, from Forty-third to Forty-seventh street, on the east side, and on the west of Tenth avenue, from Fortieth to Fifty-seventh street, on the west side. Five only of the entire number of slaughter-houses are upon the river front, the remaining forty-eight being located at various points within the limits above given. The buildings are for the most part of the cheapest construction; the yards are roughly paved; the sewerage is imperfect; and the means of cleansing are of the rudest and most imperfect character. Seven of these establishments are devoted to hog slaughtering; nineteen to cattle; twenty-three to small stock; and five to cattle and small stock. The total amount of stock slaughtered for the entire year is estimated at 320,500 cattle, 1,200,000 hogs, 1,000,000 sheep, 100,000 calves. Growing out of this business, but separated from it in buildings, ownership, and management, there are large numbers of establishments devoted to fat-melting, lard-rendering, hide-curing, gut-cleaning, tripe-curing, glue-making, etc., etc.

The slaughter-houses have occupied the area above described since 1868, when they were removed above Fortieth street by the action of the Metropolitan Board of Health. At that time this section of the city was sparsely settled, and the Board allowed them to locate above the street indicated, without regard to the inevitable wants of the rapidly increasing population of that district. In this action that Board pursued the policy of the previous authorities in simply driving the business beyond the then built-up portions of the city, and leaving to their successors the necessity of repeating the act at no distant day.

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* The Butchers' Association should, perhaps, be excepted.

It is greatly to be regretted that the Metropolitan Board did not adopt the more comprehensive policy of so locating and regulating this business at that time that the reform in its management would be permanent. The rapid increase of the population above Fortieth street very soon rendered the presence of the newly located slaughter-houses objectionable, and residents of that district began to petition the Board for their removal as nuisances.

PRESENT CONDITION OF SLAUGHTER-HOUSES.

It has been the effort of this Board, by constant inspection, so to improve the management of the business as to relieve it of its most objectionable features. But such supervision has been and can be successful to but a limited degree while the business remains scattered over a large area, and is conducted in imperfectly constructed buildings, with defective yards, sewerage, etc.

The Sanitary Committee has from time to time inquired into the causes of complaint against slaughtering and the allied offensive trades, fat-melting, hide-curing, etc., and has reported that the nuisances growing out of these kinds of business can only be permanently abated by more radical measures, such as contemplate their entire removal from the city, or their concentration *as branches of a single large business, capable of being placed under one responsible management.* The following extract from a report dated February 25, 1874, embodies the views of the Committee :

" During the past season the attention of the Committee has been frequently called to the growing evils of the business of slaughtering as at present conducted in this city. Instead of concentrating in a small and suitable area, and in large establishments, where the work can be done in a cleanly and economical manner, the constant tendency is to the multiplication of small and separate buildings and interests, and to their diffusion over a larger territory. In the opinion of the Committee the interests of the public health demand the contraction rather than the expansion of the territory devoted to this business, as well as the abatement of those nuisances growing out of it, such as cattle driving and the carriage of offal in the streets, fat melting, hide curing, etc. The experience of the past summer convinces us that this business must be brought under the most rigid sanitary control, and be concentrated within the smallest practicable area. The configuration of the island, and the pressure of the population upon all the available space for dwellings, renders it imperative that an offensive trade like this shall either remove beyond the city limits or seek a suitable location within the city, and supply itself with every available means that will enable it to be carried on without detriment to the public interests. As the warm season is again approaching, with its attendant danger of a high sickness and death-rate from those summer pestilences which are so aggravated by sources of animal filth and putrefaction which slaughter-houses create, the Committee recommend that the Board take immediate steps towards the concentration and better regulation of this business, or its entire removal from the city.

THE OBJECTIONS TO CONCENTRATION OR REMOVAL CONSIDERED.

The discussions which followed the consideration of this report determined the Board to give all parties interested in the business of slaughtering, and other trades connected with it, a hearing before taking final action. Accordingly, public notice was given, and at three separate hearings all the interests connected with the business were fully presented and discussed. The facts and arguments elicited at these several hearings, together with the documentary evidence submitted, were referred to the Sanitary Committee for examination and report.

The Committee carefully considered all the evidence laid before it, but before completing its report, the members, together with experts, again personally inspected the slaughter-houses of the city, and the abattoirs at Harsimus and on the Hackensack, with a view to be prepared to submit to the Board the most matured judgment.

The objections of the proprietors of the various slaughtering, hide-curing, and fat-melting establishments to the proposed change, together with the views of the Committee upon each, are embodied in the following propositions :

1. *The right of this Board to remove the business of slaughtering.*

The butchers seem to regard themselves as the subjects of special and uncalled-for persecution and place their business on the same footing as any other lawful trade. It is a sufficient reply to this statement to say that slaughtering has always been regarded and treated by the municipal authorities as one of the offensive trades which must be placed under control.* In the earliest legislation in this State we find this business subjected to rigorous enactments. From a former report of the Board of Health it appears that " on not less than three occasions in the history of the City of New York the slaughter-houses have been banished without the city and to the river's bank." As early as 1797 the Legislature enacted a law forbidding offensive trades south of Grand street. Considering the population and extent of the city at that time as compared with the present, an equivalent law of to-day would forbid offensive trades south of Harlem river. But the right as well as the duty of this Board to remove or otherwise regulate the business of slaughtering, if, in its judgment, such business is so located or conducted as to be detrimental to the public health, was recently affirmed by the Court of Appeals of this State. The Chief Justice declared (Metropolitan Board of Health *vs.* Heister), " Scarcely a year passes, or did pass prior to 1846, in which the Legislature did not charter some city or village, and give to the local powers full authority, by their own action and in their own way, to regulate, abate, or remove all trades or manufactures that might be by them deemed injurious to the public health." He adds, " I do not doubt either, that upon general principles of law, and considering them as nuisances, the right of regulating the use of streets by droves of cattle, and of removing houses for their slaughter from particular locations, as the public health required, was within the power of the Common Council or other local authorities, independently of the statutes by which it was given."

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* " The existence of private slaughter-houses was condemned in former times as being unlawful and injurious, especially so in cities where the population was necessarily crowded into limited spaces. Hence the large cities of Bavaria, France, Belgium, Switzerland, and Italy have their public slaughter-houses."—Prof. SCHÜLKE.

2. *Having removed their business above Fortieth street in obedience to the orders of the Board of Health in* 1868, *and having permits to occupy their present locations, this Board is bound in good faith not again to remove or disturb the business of the remonstrants.*

In reply to this proposition it may be said that there is nothing on record in this Department that shows that any former Board of Health regarded the prohibition of slaughtering below Fortieth street, and the granting of permits to slaughter in localities above that street, as in any sense guaranteeing butchers against any farther interference with their business. On the contrary, the history of this business in New York shows that the Legislature of the State and the health authorities of the city have pursued a uniform policy, viz., the removal of the business from the built-up districts and its concentration on the river fronts. Hence, it has from time to time been removed from its old localities, as the population encroached upon them, to the more sparsely settled districts, the length of time during which it remained in one place depending upon the movements of the people. The line of Fortieth street was selected in 1868 because that was regarded as the most northern boundary of the built-up portion of the city. Had the population ceased to extend in the districts above Fortieth street the argument against farther removal would have much weight. But the simple truth is that Fifty-ninth street has, in 1874, about the same relation to the northern boundary of the built-up portion of the city that Fortieth street had in 1868. It has been approximately estimated from data deemed reliable that there is about the same population to-day between Fortieth and Forty-eighth streets that there was between Fortieth and Thirty-second streets in 1868. Of this fact there is no doubt, that so far as there exists any sanitary necessity of isolating this business from the built-up portions of the city, that necessity would now compel the removal of all slaughter-houses below Fifty-ninth street, west of the Central Park, and below Eighty-sixth street, east of the Central Park. There is, therefore, in the opinion of the Committee, no evidence whatever that any previous Board of Health regarded the removal of the slaughter-houses above Fortieth street as a final settlement of their location. And there exists the same necessity for their removal in 1874 as existed in 1868, so far as the density of population in the section across the city which they occupy is concerned. The only difference is that the present slaughter-houses are more concentrated than formerly.

3. *It is alleged that the slaughtering business, as at present conducted, is done in a most cleanly and approved manner.*

There is no doubt that those engaged in this business use every means at their command to render their work inoffensive. They comply with commendable promptness with every request made by the officers of this Board, and manifest the greatest desire to avoid censure. And yet the very necessities of the trade, when conducted in the ordinary slaughter-house, render the whole business, in the summer months, a source of pollution of the air with foul and noxious gases.* The yards, floors, the walls of the buildings, the drains, and area, necessarily become saturated with animal matters which give off volumes of unhealthful odors. Scattered as these fifty-four establishments now are over an area estimated at several acres, in imperfectly constructed buildings, it is utterly impossible to keep them even tolerably free from the nuisances which attach to the common slaughter-house.

But that the question of the present sanitary state of the slaughter-houses might be determined to the satisfaction of the Board, a detailed inspection was made, the results of which are given in the following extract from a report made to the Chairman of the Sanitary Committee by Assistant Sanitary Superintendent Janes :

"Early in May last, in company with yourself and Mr. Carl Pfeiffer, Sanitary Architect, I made a tour of inspection among the several slaughter-houses situated on the east side of the city, with a view of examining critically as to their sanitary condition, and of recommending such improvements in the method of conducting the business of slaughtering, as their present condition, and a due regard to the public health and public convenience, might suggest. The day selected was Saturday, which is adopted as the general cleaning day, when the work of slaughtering is suspended, in order that the weekly purification may be general and complete. The hour appointed was 12 o'clock, thus allowing ample time for the premises to be put in a condition to bear inspection. From this it will be seen that no advantage was taken of the proprietors, but, on the contrary, the premises were inspected on the very day when they are supposed to be attired in holiday dress. Notwithstanding this, it was difficult to see that degree of improvement which our advanced facilities and knowledge in sanitary matters ought to secure. Many of the yards, though not yet dry from the recent flushing, were, to say the least, filthy, containing pools of bloody water in the several depressions of the pavement, with pieces of offal and portions of manure adhering to the fences, and in the corners. In a number of the yards, the pavement was so uneven as to render thorough cleansing extremely difficult, while the absorbent and defective floors were either offensive from saturation or from leakage, and gave origin to offensive odors underneath them, which escaped into the street, to the annoyance of passers by. In most of these places the drainage is defective, to some extent due to the imperfect condition of the pavement and distance from the river, and the removal of offal, though claimed to be regular, is wholly without system and imperfectly effected. Each portion of the animal not destined for human food being separately disposed of, it is very seldom that some portion of animal refuse is not allowed to remain on the premises beyond the prescribed time, waiting for the arrival of the man whose business it is to remove it. Although a few of these establishments are kept in as cleanly a condition as their construction and the present method of management will allow, I feel justified in saying that perfection of sanitary management requires that the business of slaughtering be conducted on a different system from that now followed. Having completed our inspections on the east side, we then proceeded to those on the west side, which we found in no better condition."

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* "The most conscientious and careful butcher cannot prevent a slaughter-house being a nuisance to his immediate neighbors and to the city generally."—Dr. E. B. Dalton, Sanitary Superintendent Metropolitan Board of Health.

"In spite of all the cleanliness that can be exercised, the unavoidable presence about the slaughter-houses of large quantities of animal matter, such as blood, dung, hides, offal, etc., the saturation of the ground with the liquid portions of these, and the exhalations from them, and from the animals themselves, contaminate the air which must at once enter the rooms of adjacent dwellings."—Inspector Emerson, Metropolitan Board of Health.

"The blood and offal not being promptly removed, undergo putrefaction, filling the air with pestilential odors, and becoming a prolific source of disease. The increasing prevalence of cholera infantum, typhoid fever, erysipelas, and other diseases, may be traced in part to this cause."—Inspector Maclay, Metropolitan Board of Health.

Mr. Pfeiffer reports the results of this inspection as follows:

"The majority of the New York slaughter-houses are in a filthy condition, owing to the neglect of sanitary precautions and faulty construction, and the odors prevailing within them seem to me injurious to the meat which is stored there and prejudicial to the health of the neighborhood. I became sick with nausea and headache after a few hours' inspection in May last, though the inspection was made on Saturday, when there was no business, and all the places had been cleaned as thoroughly as possible."

4. *It is alleged that the public health is not injuriously affected by slaughter-houses and the methods by which the slaughtering and necessary accessories of that business are at present conducted.*

This question cannot be settled by mere opinion nor by casual observations, for in any correct statement of the evidence relating to it, not only should the actual sanitary condition and surroundings of the slaughter-houses and their outcome be regarded, and the healthful or the impaired qualities of the flesh of the slaughtered animals be correctly known, but, added to these matters of primary interest, the actual conditions of all the accessory and collateral parts of the general business of slaughtering of food-animals must be considered. The fact is indisputable that the waste and outflowings from the several slaughter-houses, the opening and necessary exposure of the entrails and contents of millions of slaughtered animals, the distribution and movement upon vehicles of their hides, fat, hoofs, and refuse across the city and along the compactly occupied streets, become of themselves the sources of nuisance and offense to the health and comfort of vast numbers of inhabitants ; and yet it may be quite impossible so to separate these several parts of a general cause of injury, that they can be individually indicted upon medical or popular evidence of causing particular diseases, or the sickness and death of individuals that can be separately designated.

The evidence is cumulative and comprehensive, and as such it is as conclusive as any such evidence and proof need to be. Whether we consider this line of evidence in its several parts distinctly, or in its unity as a whole, the facts in regard to it cannot be treated as mere coincidences.

We have evidences of the existence of sources of sickness in the neighborhood of slaughter-houses, especially during the summer months, of a grave character. It cannot be doubted by any one who frequently inspects these establishments, that one of the contributing causes of this increased sickness-rate is the defilement of the air, the yards, the streets, the sewers, etc., by the filth incident to the slaughtering business as now conducted.

We cannot overlook, in this connection, the opinions of experienced sanitary officers and other qualified observers. These opinions have been given as the result of a study of existing causes of disease, or have been elicited in the efforts of municipal authorities to regulate slaughtering. They uniformly condemn the ordinary slaughter-house as an important factor in the causation of unhealthiness, and recommend its abatement.*

5. *It is alleged that the business of slaughtering in this city is so great in amount that it cannot be conducted in the abattoir.*

This question the Committee have submitted to Mr. Carl Pfeiffer, the Sanitary Architect of the Board, who has visited and carefully estimated the capacity of all the principal slaughter-houses of New York, and also the abattoir at Harsimus, N. J., and on the Hackensack river. From Mr. Pfeiffer's report (Appendix "B") it appears that the entire business of slaughtering in New York may easily be concentrated in a *single* abattoir, the buildings and yards not occupying a very large area. This abattoir would admit of the disposition of the entire animal within the building—blood, hide, tallow, entrails, hoofs, etc. If properly located on the river front, animals need never enter the streets, and the sewerage may be so perfect that all the liquids shall be discharged beyond low tide.

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* Dr. Letheby, one of the most experienced sanitary officers of London, expresses the following opinion in one of his annual reports: "As far as the city of London is concerned, there is a pressing necessity for the removal of all the slaughter-houses; for, as I have recently reported to you, they are situated in crowded localities, where they are not only in themselves a nuisance, but here they also encourage offensive trades, as bone-boiling, fat-melting, and gut-spinning. There are fifty-eight of these slaughter-houses in this city, and they receive about 5,400 sheep, 1,800 cattle, 420 pigs, and 400 calves every week. All these animals must be brought through the crowded streets, and the dung and blood and offal must afterwards be carried away. The annoyance from this is a frequent subject of complaint."

Dr. Mapother, Health Officer of Dublin, says:

"The position of slaughter-houses scattered through the densest parts of a city is a subject which demands earnest attention. Notwithstanding the best water supply and sewerage, the earth in the neighborhood of these places becomes imbued with the blood and refuse of the animals, and the air becomes polluted, much to the injury of the health of the surrounding residents."

"The plague in London, in 1349 and 1361, raged particularly in the neighborhood of Smithfield, because of the pollution of the ground by offal, and all slaughtering in the city was forbidden by Edward III."

Dr. James A. Stewart, Health Officer, Baltimore, Nov. 20, 1873:

* * * "Our city is still suffering from the nuisance of slaughtering establishments within the city limits, and, notwithstanding the strictest watchfulness and order on the part of the police and Health Department, prove constantly a serious punishment and detriment to the neighborhoods in which they exist. * * * * I regard the removal of all such establishments to a locality where the offence to the inhabitants can be reduced to the minimum of vital importance in a sanitary point of view, and think it the duty of all Health Boards everywhere to coöperate, through the public press, and upon every fitting occasion to urge and insist upon this change."

It follows that if the business can thus be concentrated in a single establishment, two, or at most three, abattoirs of smaller dimensions, but equally well located and appointed, would be ample for the present and future wants of the city.

7. *It is alleged that an abattoir is a monopoly designed to benefit the few.*

The idea of a monopoly grows out of the necessary restrictions which must be imposed upon private slaughter houses. It is assumed by the opponents of public slaughter houses, that every man has the same rights in the establishment, regulation, and control of slaughtering, that he has in regard to any other business. The fallacy of this reasoning, so far as relates to this city and State, was noticed in the first objection in this report. It is there shown to be the duty of municipal authorities to place this business and its adjuncts under the most positive restrictions, if they are believed to be detrimental to the public health. Similar powers are given to local authorities in other States.*

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* An act passed the Massachusetts Legislature in 1870 incorporating the "Butchers' Slaughtering and Melting Association in Brighton," which, among other provisions, contains the following: "The State Board of Health may, if in their judgment the public health requires, order any person, at any time, engaged in the business of slaughtering within six miles of the Faneuil Hall Market in Boston, and not upon any island in the harbor, to slaughter his cattle, sheep or other animals upon the premises of said corporation." In 1871 a general act was passed "*concerning slaughter-houses and noxious and offensive trades.*"

In 1868 the Prussian Government enacted:

(1.) In those districts where a public slaughter-house has been erected, the district authorities shall have power to direct that the slaughtering of all and every description of cattle, as also certain kind of work and manipulation (to be designated and described), shall be done *exclusively* within said slaughter-house. Said authorities shall also have power to prohibit the further use of any other parts or places, excepting such as are designated for said purpose within any public slaughter-house being lawfully possessed and managed by a corporation or mutual association.

(2.) The district authorities shall have power to ordain by resolution, on the erection of a public slaughter-house, that all cattle entering the same and intended to be slaughtered, shall be subject to an *examination* by experts who shall *certify* to the *healthy state* of said animals, both *before* and *after* slaughtering.

(3.) It shall be the duty of the corporation or association having control of a public slaughter-house established for the exclusive purpose of slaughtering cattle, to arrange and regulate its formation in such order as will meet all local requirements, and to maintain it in this same condition.

(4.) The corporation or association is authorized to raise certain *fees*, to be paid for the use of the premises, as also for the examination of the cattle, especially the examination of the *meat*. This tariff of fees shall be fixed by resolution of said corporation, etc., for at least one year, and be published.

(5.) The use of the establishment shall be open to all who comply with the prescribed regulations.

But an abattoir is simply a coöperative slaughter-house conducted by a corporation organized on strictly business principles. Capital is required and is furnished by capitalists. But capital is invested for the purpose of remunerating returns, and the business of the corporation is organized as to secure such returns. It would manifestly defeat the very purposes for which capital is invested if the business were so organized and conducted as to damage the trade.*

It is contended that if public slaughter houses, or abattoirs, are to be organized, the butchers alone should form the corporation. This is a feature of the business which will regulate itself; if the butchers have the requisite capital they will compose the corporation; if they have not, they will seek capital from other sources. In constructing the abattoir at Boston, the butchers called upon capitalists to unite in the enterprise in the most urgent terms, and complained that the butchers were left to bear the burden alone.

8. *The time allowed for removal or concentration must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss.*

The Committee fully recognize the importance of this proposition, and recommend the Board to allow as much time for the proposed change as it may deem compatible with the public health. Where large private interests are required to yield to the demands of the public welfare the utmost care should be taken that the former be not subjected to unnecessary hardship. In the present case the amount of capital invested is considerable, and time will be required to adjust the new relations of business in the proposed changes so as to reduce individual losses to a minimum. And yet the Board, in considering private interests, should not lose sight of the fact that the evils of the present system of slaughtering are of a serious character, are gradually but constantly increasing, and at no distant day existing slaughter-houses will become so intolerable that summary measures will be demanded for their removal. In our opinion it is the duty of this Board to recognize the future as well as the present sanitary wants of the city, and adopt such timely measures as will secure the abatement of growing nuisances like those under consideration.

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* Professor Schülke says: "The impression prevails that the tax on slaughtering, fees for examinations, cost of maintaining the institution, etc., would have a general damaging effect. This apprehension has *not been verified* after the erection of any public slaughter-house."

"The Butchers' Slaughtering and Melting Association (Boston) is not simply a business corporation, and has no monopoly in the slaughtering business. * * * It is subject to stringent regulations, instituted for the public health, comfort, and convenience, and is therefore a public servant commissioned to furnish all needed facilities to those who apply for slaughtering on its premises, and further, to care for the refuse and offensive products, so that there shall be no nuisance resulting from the business."—ANNUAL REPORT OF THE ASSOCIATION.

SANITARY ADVANTAGES OF CO-OPERATIVE SLAUGHTER HOUSES OR ABATTOIRS.

If now we turn from the consideration of the objections raised to this reform, to consider the sanitary aspects of the question of concentration of the business, we notice :

1. *Facilities would be afforded for the thorough inspection of cattle and meats.*

It is of the first importance as a sanitary measure, that there should be ample facilities for the intelligent inspection of the cattle to be slaughtered, and of the meats to be exposed for sale in the markets.

Since the introduction of railroads, the increase of diseased stock in our markets has been very marked. Not only does easy transportation facilitate the conveyance of diseased animals, which would otherwise be allowed to die in the country, but many healthy animals are so bruised in transit that, when slaughtered, large subcutaneous abscesses are disclosed. Formerly, stock reached the markets of large cities only by the slow process of foot-traveling, but this necessitated the feeding of animals at proper intervals, in order that they might retain their flesh. They thus reached their destination by easy marches, foot-sore perhaps, but not greatly reduced in flesh, nor weak from suppurating sores. In railway transportation the whole system is changed. The stock is crowded into open cars, often hundreds of miles distant, exposed to the weather, unable to lie down, jammed with violence against the sides of the cars by the motion of the train or by crowding ; and to add to this cruelty, often deprived of food and water.

The temptation to slaughter diseased cattle in large cities is very great, and the opportunities afforded are abundant when the business is entirely unregulated and free from the surveillance of competent sanitary officers. In every city where no restrictions upon the trade exist, there is a class of men who deal in diseased cattle and meats exclusively. In the cattle yards they purchase the sick, lame, or injured stock, and in the markets they select the rejected meats, and then retail this unwholesome refuse of the slaughter-house to the poor.[*]

To guard the people against the imposition of diseased meats, the best regulated foreign cities require the careful inspection by expert officers of every animal brought to market. All obviously diseased cattle are sent to the offal depot, and the suspected are detained in yards or stalls for observation. All the meats offered for sale in the public markets must have a previous inspection. In this manner the people are protected from even the liability of receiving unwholesome meats.

But no sanitary inspection worthy of the slightest confidence can be maintained over the meat supply of our markets while the present scattered, unregulated, and practically unlicensed system of slaughtering is continued.[†] Cattle suffering any and every form of disease

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[*] Professor Gamgee says: "In London I have seen butchers in private slaughter-houses dress extremely diseased carcasses and 'polish' the meat. This filthy practice consists in killing a good fat ox, at the same time that a number of lean and diseased animals are being killed. Boiling water is at hand, and when the lean animals have been skinned, their flesh is rubbed over with fat from the healthy ox, and hot cloths are used to keep the fat warm, and to distribute it over the carcass, that it may acquire an artificial gloss and an appearance of not being totally deprived of fat. In Edinburgh I have seen sickly lambs, without a particle of fat upon them, dressed up with the fat of healthy sheep much in the same way. From the private slaughter-houses in London I have known even the diseased organs themselves sent to the sausage-maker. In company with another member of my profession, I have seen a carcass dressed and portions of it prepared for sale as sausage-meat and otherwise, although thoracic disease had gone to such an extent that gallons of fetid fluid were removed from the pleural sacs, and that large abscesses existed in the lungs."

The following is an exhibit of the amount of unsound meat and the number of diseased animals condemned as unfit for human food in the City of New York during the year 1873 (*Report of Sanitary Police*):

Number of pounds of Beef	37,202
" " Mutton	5,115
" " Veal	23,325
" " Ham	2,378
" " Corned Beef	80
" " Pork	9,520
" " Lamb	1,349
Total	79,329

Number of Cattle	20
" Sheep	268
" Hogs	293
" Veal (carcass)	104
" Veal, "Bob"	997
" Lambs (carcass)	50
Total	1,732

[†] "The vigilant inspection of these houses is very difficult on account of their scattered position, and a constant and reliable examination of meat is impossible."—Dr. Mapother, Health Officer of Dublin.

may pass unnoticed and unchallenged to any of the fifty slaughter-houses, and the carcass may go thence to the market without hindrance, unless the Sanitary Police officer should *chance* to notice it.

The only practicable and indeed possible method of instituting an adequate system of cattle and meat inspection is the concentration of the business in large and well-regulated abattoirs. The very incorporation of butchers in such companies leads to the expulsion from the business of those irresponsible dealers who live by a sort of contraband trade.

But the great sanitary feature of the proposed regulation is the rigid inspection of cattle and meats which may be so successfully carried out.*

2. *Abattoirs properly conducted tend to the purity and preservation of meat.*

Fresh meats afford, during the warm summer months of the year, a fertile soil for the development of the germs which arise from decaying or decomposing matter, vegetable and animal. The germs are, of course, the most abundant where there is the largest amount of organic matter. When implanted on fresh meat, at a proper temperature, they at once begin to develop and the meat undergoes putrefactive changes. In certain localities meats cannot be preserved in the summer except on ice, for even an hour. And it is susceptible of demonstration that meat slaughtered in filthy stalls and exposed to the emanations of unclean yards, areas, drains, etc., quickly takes on putrefaction.* If now we recall the fact that the meats slaughtered in New York hang in an atmosphere charged with foul emanations, we cannot doubt that these meats reach the butcher's stand in the summer in a stage of incipient, if not advanced, decomposition. If we add to this exposure to the filth of the slaughter-houses, the additional exposure to the filth of the street, as the cart is driven to market by the butcher, we have the best conditions that could be devised for furnishing the people of this city with unwholesome meats. That such a meat supply is detrimental to the health of the people there is no doubt.† The effect of inoculating a wound, with meat in this stage of putrefaction, is most dangerous, often resulting in violent inflammation and speedy death.

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* Dr. Letheby, Health Officer of London, says: "My opinion of the injurious effects of diseased meat on the health of those who make use of it is very decided. I have seen so much mischief from it that I do not hesitate for one moment to say that some legislative measure is most pressingly wanted to prevent, not only the traffic in diseased meat, but also to prevent the slaughtering of diseased animals. Such regulations are now in operation everywhere on the continent, and they are much needed here. In the city markets alone my officers seize from one to two tons of diseased meat every week. Last year we seized 110,046 pounds of meat, of which 78,697 pounds were diseased, and 13,944 pounds from animals that had died. We often pursue the offenders into a court of justice and have them fined or imprisoned; but I feel that the mischief should be stopped before it reaches the markets. Officers are wanted to examine the cattle before they are slaughtered."

Prof. Schülke says: "The general deleterious effects caused by these private slaughter-houses are further augmented by the absence of any examination of the animals about to be slaughtered, as also the meat intended for sale. Numerous instances are known of diseased cattle being slaughtered in these petty establishments and the meat sold for consumption. It is equally certain that much of this injurious traffic remains undiscovered. In a coöperative slaughter-house the supervision must be practically less difficult and more stringent, depending, as it would, on the mutual vigilance of those concerned, who would thus exclude all diseased animals and sickly meat. In Brussels, during one year, the public examination of cattle prior to slaughter resulted in 56 cows, 4 oxen, 11 sheep, 3 pigs, and 1 calf being declared in a state destructive to human health, and their carcasses were therefore destroyed. These diseased animals would otherwise probably have been sold for consumption.

But in the abattoir as described by Assistant Sanitary Superintendent Janes (see Appendix "A") we have these conditions changed. All is scrupulously clean; the air is untainted by decomposing organic matter of any kind; the meats are hung up in a cool, dry atmosphere; and transportation to market is on barges thoroughly clean and well ventilated.‡

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* "The putrid emanations from these slaughter-houses are such that meat cannot long be kept in them, or in shops adjoining them."– Prof. Gamgee, "Fifth Report Med. Officer Privy Council."

† Prof. A. S. Taylor (Work on Poisons) says: "There is no doubt that partial decay may render unwholesome and injurious the flesh of the most healthy animal; and it is by no means improbable that among the poor of large cities the secret sale of decomposed and unwholesome meat is a very frequent cause of disease and death."

* * * "There is indisputable evidence of nearly a whole village suffering severely, and of one death, from malignant pustule, in consequence of eating the flesh of an ox slaughtered while laboring under this form of anthrax (carbuncle) fever without eruption."—R. Ceely, "Sixth Report Med. Officer Privy Council."

Dr. Letheby, Health Officer of London, says: "As to the effects of such meat on the human subject, I have seen many cases of illness from it. One of these is sufficiently important to bring under your notice. In the month of November, 1860, a part of a diseased cow was bought in Newgate Market. It came from one of the cow-houses in London. It was bought by a sausage-maker of Kingsland, and, as is commonly the case with very bad meat, it was made up into sausages. Sixty-six persons partook of the sausages, and sixty-four of them were made very ill. They were purged, became sick, giddy, and the vital powers were seriously prostrated, and they lay in many cases for hours in a state of collapse, like people with cholera. One man died, and I was requested by the coroner to inquire into the matter. I obtained some of the sausages, thinking that a mineral poison might be present, but I could discover none; and the whole history of the case showed that it was diseased meat which had done the work."

Prof. Gamgee says: "My own observations confirm the opinions of the eminent authorities just quoted. I have known many instances where meat supplied in lodging-houses in this city has led to vomiting, purging, and severe colic. In the majority of instances such meat was cooked in the form of beefsteak. Three of my own students were affected simultaneously one day in December last. Within a couple of hours after dinner they experienced colicky pains, purging, vomiting, and these symptoms lasted several hours. Bread, potatoes, and water were the only other materials they had partaken of at dinner. On another occasion two were affected, but did not attribute the injury to the steak until the next day, when the servant ate what had been left of the meat, and suffered severely."

‡ "Among the many advantages of the abattoir system may be noticed the facilities for cooling the meat

Mr. Pfeiffer remarks, as the result of his personal examinations of abattoirs :

" The abattoir also demonstrates that in a large establishment the slaughtering is more readily supervised and the whole business done more systematically and more cleanly ; in fact, so cleanly that nothing offensive is perceptible, owing to the superior sanitary precautions that have been taken in the construction, and the constant enforcement of proper regulations which experience has proved almost impossible to enforce in a large number of small establishments scattered over a great part of the city."

3. *The nuisance created by cattle-driving in the streets and the carriage of butchers' offal and refuse will forever be abated.*

The sanitary importance of discontinuing the driving of cattle and the cartage of butchers' refuse through the streets cannot be doubted by any one. They are both nuisances against the public health and public convenience which demand abatement.

4. *The large surface area now occupied by the business would be diminished to the least practicable space, and the entire territory occupied could be preserved in a much greater state of cleanliness than that of any one of the single establishments now in use.*

It has been taken for granted by some gentlemen that, if fifty-four slaughter-houses should be concentrated in one establisment, that this single establishment will become fifty-four times more offensive than one of the existing slaughter-houses. This view is not only absurd, but practically the reverse is true. If, for the loosely paved yards, the imperfectly drained areas, the absorbent floors, etc., of the present slaughter-houses now widely scattered, we can substitute a single yard on the river front, with impervious bottom, susceptible of being thoroughly flushed at all times with water ; a building with

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with ice while on the barges, and for moving it in large masses to its destination without regard to the state of the weather."—Jackson S. Schultz, Esq., President of the Met. Board of Health.

"To complete the reform in the modes of slaughtering in the vicinity of Boston in such a way that nobody shall suffer and everybody shall gain, there are needed one or more *abattoirs*, containing all the improvements which European experience can furnish or modern science suggest. * * * The sanitary advantages of such a system would be—1. The removal of the present offensive odors ; 2. The removal of slaughter-house pork from markets ; 3. The ready inspection of meat, thus insuring the rejection of that which is unfit for food." —Third Report Mass. State Board of Health.

Prof. Schülke says : " In a public slaughter-house cleanliness can be practically effected with more facility, and the offal, etc., gathered, disinfected, and disposed of more easily than in a private place. The close proximity of a public slaughter-house to the cattle market has the advantages of saving the animals from the torture of being driven long distances through the streets and suffering hunger and thirst."

non-absorbent floors, and equally capable of rapid and thorough cleansing, it is apparent that large and filthy areas now reeking with ordure in the summer's sun, and floors saturated with animal matters, would be entirely removed, and the substitute would be a single limited area, at all times kept thoroughly clean, and buildings free from contamination.

5. *Concentration of slaughtering as proposed will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of business growing out of slaughtering.*

Not the least of the evils arising from the maintenance of numerous slaughter-houses are those kinds of offensive business, like fat-melting, which are its adjuncts. These trades are carried on by independent operators on their own premises, and always in a most slovenly and negligent manner. The butcher is likely to retain his fat until it becomes putrid, and then it is carried through the streets to the dilapidated fat-melting house where it is rendered with imperfect apparatus; the hides are cured by another small and irresponsible dealer, in any old building which he can secure; the entrails, in a state of active putrefaction, are taken by still another dealer through the city to any dilapidated rear building where the workman can be concealed, and there they are manipulated for days together; the hoofs are claimed by a fourth, and are carted the length of the city, creating a most sickening stench; a fifth takes the tripe, and so on, until the entire body disappears amongst a multitude of careless and negligent, petty tradesmen. It has been the constant effort of this Board to so regulate these trades as to abate their offensiveness, but the result has been most unsatisfactory. Ordinances and inspections, fines and arrest, avail nothing. The only effectual remedy is the removal of these trades from the city, or their union with the business of slaughtering under regulations which shall require that all parts of the animal shall be suitably cared for on the premises, and in such manner as to create no nuisance.*

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* "When the abattoir system is in full operation it is confidently predicted that all parties will gratefully accept the change, and that the sanitary condition of many portions of the district will be greatly improved. When the business heretofore transacted at two hundred slaughter-houses and forty fat, bone, and offal boiling establishments, located in the most densely populated portions of the cities of New York and Brooklyn, is removed and concentrated at three or four abattoirs, properly located on the banks of East and North rivers, then, and not till then, will the several business pursuits, which have heretofore seemed to defy legislation and violate with impunity all the laws of sanitary science, be thoroughly and effectually controlled."—Jackson S. Schultz, Esq., President Met. Board of Health.

6. *Advantages of Location.*

It is contended by some persons that the only method of effectually remedying the evils of slaughtering is the removal of the entire business beyond the city. While it is true that such removal would relieve the city of the ordinary nuisances connected with the trade, it must be remembered that by removal the important sanitary advantage obtained by concentration within the city, namely, inspection of meats, would be lost. Nor is there a necessity for removing the business from the city in order to secure proper isolation. By the acquisition of new territory, New York now offers superior advantages for the location of public or coöperative slaughter-houses within the city limits. The river fronts, upon which such establishments may be located, have been largely extended, and large areas of contiguous lands, for the care of stock, are now available. Locations for the business may be secured which combine facilities for isolation, cleanliness, economy, the proper care of stock and meats, and the utilization of refuse without offense. Transports and rail-cars may be so arranged as to meet in the abattoirs ; means for utilizing all forms of refuse without detriment to the public health may be provided ; and the ample stock-yards may contain every needed provision for the care of stock. And there can be no doubt that the corporation which selects a site for the slaughter-house on the river front, with a large supply of lands for the proper care of stock, may now fully meet the present and prospective sanitary requirements of authorities.

The conclusions which the Committee have reached are :

I. That it is the duty of this Board to take the necessary preliminary steps towards the removal of the business of slaughtering, and all accessory trades, from the city limits, or their concentration in suitable locations, and in properly constructed and appointed buildings.

II. In order that such an amount of time may be allowed for the change required as will, as far as practicable, prevent unnecessary hardship to any person now engaged in the business, it is recommended that the fourth day of July, 1876, be the day on which the ordinances relating to the business shall take effect.

III. That the Board should not prescribe the number of abattoirs or slaughter-houses, but should require, among other things, that each one should have —

First. A location directly on the river, and facilities for receiving stock directly into the yards from transports or rail-cars.

Second. A capacity for slaughtering daily one-half, at least, of the entire number of animals of the particular kind to which each abattoir is devoted (whether of cattle, hogs, or small stock), slaughtered in New York at the time this ordinance takes effect.

Third. Arrangements for utilizing on the premises, and without offense, all parts of the animal except the marketable meats.

IV. That on and after the date fixed the public streets shall not be used for the driving of cattle, nor small stock, nor shall any of the offensive trades connected with the business be allowed outside of these public slaughter-houses.

V. That no building shall be erected for or converted into an abattoir, the plans of which have not been submitted to and approved in writing by the Board of Health.*

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* The following are the conclusions of a report recently made to the Sanitary Committee of the Commissioners of Sewers of the City of London upon slaughter-houses in that city. There are twenty-eight licensed slaughter-houses in the city (old) of London, and the report was made by two medical officers of health, after a careful and detailed inspection of each of these establishments :

1. *That no private slaughter-houses should be allowed in the city of London ;* and

2. *That every effort should be made to bring about the establishment of public abattoirs.*

We venture, moreover, to urge the following additional reasons why, to our mind, public slaughter-houses would be exceedingly desirable :

1. Facilities will be afforded for the inspection by skilled inspectors of all the animals entering the slaughter-house, as to their healthy or diseased condition, as well as for the examination of the carcasses before they are removed from the premises. In this way we believe the amount of bad meat which is now sold will be materially lessened. Under existing circumstances a systematic examination of the animals is impossible. It may be urged that, at present, nearly all the prosecutions instituted by your Court are on account of bad meat which is sent from the country. The reason of this is, not that no diseased, unsound, or putrid meat is found in the private slaughter-houses of the city, but from the impossibility of that complete inspection which is necessary for its detection. The inspection of the private slaughter-houses cannot be complete unless an inspector be appointed for each slaughter-house, which, we need scarcely say, owing to the enormous expense that would be involved, is impracticable.

2. Cruelty in killing would be kept in check. This cruelty (and we have ourselves witnessed it over and over again) is, we do not hesitate to say, perfectly uncalled for. It is unnecessary to enter into details, but it could be easily done.

3. The establishment of public abattoirs would tend to lower the price of meat. All experience in this country, and on the continent, where public abattoirs have been provided, prove this to be the case. The assertions made to the contrary are mere assertions, and are unsupported by a single fact. It may be mentioned

The Committee recommend the adoption of the following ordinance:

That on and after the fourth day of July, 1876, *the business of slaughtering animals in the City of New York shall not be conducted south of One Hundred and Tenth street, unless the same shall be done in buildings located directly upon the water front, each having a capacity sufficient for the yarding and slaughtering daily of one-half of the entire number of cattle, or hogs, or small stock (all or separately, according to the particular object of each abattoir) slaughtered in this city at the time this ordinance shall go into effect, and so constructed as to receive all stock deliverable thereat directly from cars or transports; and to discharge therefrom all liquid refuse below low-water mark; and to secure the proper care and disposition of all parts of the slaughtered animals upon the premises, or the immediate removal thereof by means of boats; and on and after the fourth day of July*, 1876, *no cattle, sheep, hogs, or calves shall be driven in the streets of*

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further that the inferior parts of the animals, which are said to be purchased by the poor, could be just as well offered for sale in the public abattoir as in the private slaughter-house, and such parts would probably be sold at a lower price than they are now, as the expense of using public slaughter-houses would, as experience points out, be less than that incurred by the use of private ones.

4. The flesh of an animal killed at the spot where it was fed not only keeps fresh much longer, but is infinitely better than when the animal has been brought a long distance by rail, jostled and bruised by the jolting of a railway truck, and then kept, as it usually is, for forty-eight hours or longer in the close and confined lairs, or killing-pounds, such as are found, almost without exception, in the city slaughter-houses. Nor must we lose sight of the fact that the meat of a healthy animal killed in the private slaughter-houses is very likely to become contaminated from the inevitable deposits of manure, putrid blood, and other foul materials which are found in and around the close and confined spaces of the slaughter-houses. We may state here that the owner of one of the private slaughter-houses in the city told us that he had not used it since last summer, and did not intend to use it again, as he had found that country-killed meat was much to be preferred, as it kept sweet infinitely longer. and, on the whole, was much cheaper.

5. The abolishing of private slaughter-houses would necessarily, in a great degree, do away with the nuisance of driving animals through the crowded streets and the consequent evils attendant thereupon. It would also, by providing proper lairs. lessen the noises caused by the animals being packed in confined areas, which are often complained of by persons living in the neighborhood of a slaughter-house.

We have no suggestions to offer respecting the improvement of the existing slaughter-houses. The slaughter-houses in the city are, in our opinion, without exception, altogether unfitted, both by construction and locality, for the purpose; and we most strongly recommend your Committee to take under your consideration the establishment, in appropriate places, of a sufficient number of public slaughter-houses or abattoirs. The marked success that has resulted wherever abattoirs have been erected fully justifies us in strongly urging this as the only remedy for existing evils. One huge abattoir, as some have suggested, would, we are of opinion, be undesirable; but the establishment of a sufficient number of them would, judging from the experience of authorities gained elsewhere, be a great sanitary improvement, and would benefit all parties concerned, not merely the public, and especially the poor, by providing them with better and cheaper meat, but the butchers as well. The present opposition of the trade is, we are convinced, dependent on a false prejudice and ignorance of the benefits which will accrue to them, as they have accrued to others, when the private slaughter-houses have given way to the abattoirs.

such city below One Hundred and Tenth street; nor shall any offensive business growing out of that of slaughtering, as fat-melting, hide-curing, gut-cleaning, bone-boiling, glue-making, etc., etc., be conducted, except on the premises constructed and prepared as herein required, and devoted to the slaughtering and the disposing thereon of all parts of the slaughtered animals as aforesaid; nor shall any fat, hides, hoofs, or entrails, or other refuse parts of slaughtered animals (except fat or tallow attached to meat exposed for sale, or collected by licensed dealers), be transported in said streets; nor shall any buildings be erected, or converted into, or used as a slaughter-house, until the plans thereof have been duly submitted to the Board of Health and approved in writing by the said Board.

Respectfully submitted,

STEPHEN SMITH, M. D.,
Chairman.

APPENDIX.

"A."

SANITARY BUREAU, June 9, 1874.

To DR. STEPHEN SMITH,
Chairman of Sanitary Committee:

SIR—I have respectfully to submit the following report of recent inspections of slaughter-houses of this city with reference to their sanitary condition: * * * *

(See page 8 of report.)

On a subsequent day we visited the stock-yards and abattoir of Jersey City, in order to compare the abattoir system of slaughtering with that pursued in the detached slaughter-houses of New York. This establishment is located over a small bay, formerly known as Harsimus cove, being a short distance south of the Pavonia ferry-house and next to the premises then occupied by the "White Star" line of steamers. Situated on an immense pier, which extends from the inner shore of the cove to the line of the river shore proper, being a distance of half a mile, it has the advantage of the regular flow and ebb of the tide underneath the entire establishment, washing away every particle of filth, whether liquid or solid, which may, either accidentally or otherwise, escape into the water. The dimensions of this establishment, its capacity for yarding and slaughtering, together with the statistics of what has been actually accomplished during the brief period of its occupancy, are sufficiently treated by Mr. Pfeiffer, and I shall therefore confine myself to a brief statement of its sanitary condition, compared with that of our own detached establishments. That portion of the establishment which is devoted to yarding comprises by far the greater part of the entire area, and is divided by fences, so constructed as to admit of free ventilation, into smaller yards situated on each side of a broad carriageway, and all kept scrupulously clean by men whose time is devoted exclusively to this duty. Here is yarded not only the stock slaughtered on the premises, but a considerable portion also of that shipped to New York and Brooklyn, all arriving and passing through Jersey City on an elevated railroad, having its terminus by an inclined plane on the premises, thus avoiding the necessity of driving through any portion of the city, which is one of the highly objectionable features connected with the slaughtering business, as conducted in New York. At the terminus of this railroad is the ferry-landing, from which the freshly slaughtered animal is transported to the New York or Brooklyn market, and the live stock to some dock near their destination in either city.

That portion of the premises devoted to the business of slaughtering is admirably arranged, both in regard to construction and management, so as to meet every sanitary requirement. The floors being constructed of asphalt, are non-absorbent, and can be readily flushed at any moment. The several compartments are separated only by an iron railing, thus allowing every facility for ventilation, while the movable sky-lights and side windows complete the arrangements for cross and upward currents. The hides, immediately upon being removed from the slaughtered animal, are salted on the premises, and thus placed beyond the danger of putrefaction, while there are complete facilities for the removal of every species of offal and refuse, so that at night, when the work of the day is completed, not a vestige of animal refuse remains on the premises. The sanitary care of the premises is undertaken by the Abattoir Company, and not by the individual butchers, the latter being restricted to certain hours, during which the work of the day must be completed, that the duty of the cleaners may not be interrupted. This is a contrast beyond comparison with the fifty-four slaughter-houses of New York, where the condition of each depends on the proprietor's peculiar ideas of order and neatness, and where, for most of the time, commendable cleanliness is the exception rather than the rule. One need but make a tour of inspection among these fifty-four slaughter-houses, and see them, even under the most favorable circumstances, and then visit a well-constructed abattoir conducted on the plan mentioned above, to be convinced of the superiority of the latter system as it regards neatness, public convenience, public health, and economy.

The hog-slaughtering establishment connected with this abattoir is located on the Hackensack river, some three or four miles from Jersey City, so far remote from human dwellings as not to be a source of offense or annoyance to any one. As fast as the animals are slaughtered, they are transferred to well-ventilated cars, where they remain suspended until they reach the ferry-boat, from whence they are transferred to New York or Brooklyn, thus avoiding the necessity of too frequent handling. In this manner pork can arrive at Washington Market in less time, and, I believe, in better condition, than it can by being packed on heavily-laden trucks, and transported from Thirty-ninth or Forty-first street through the streets of New York. The same management and discipline are extended to this establishment as are exercised at the Harsimus abattoir. It is here that the fat from both establishments is rendered and the offal utilized ; that from Harsimus being transferred by railroad in tightly-covered cars, to which it is removed immediately upon being separated from the animal. The fat is rendered by aid of the most approved apparatus, while the offal and blood are in the process of being converted into fertilizers before they are entirely deprived of their animal heat. So complete is the entire machinery by which the more offensive features of the business are conducted, that the odors usually developed by fat-rendering and the utilizing of animal refuse are reduced to the minimum, and are scarcely perceived a hundred yards from the building ;

a result of concentration and intelligent management which it is impossible to obtain in small establishments, each one conducted in accordance with the peculiar views of its proprietor.

It is my opinion that the capacity of the Harsimus abattoir is sufficient to supply the entire New York market, or that two or three smaller establishments, properly located and conducted on a similar plan, would relieve our citizens of the many nuisances which have been supposed to be inseparably connected with the slaughtering business.

Respectfully submitted,

E. H. JANES, M. D.,
Assistant Sanitary Superintendent.

"B."

NEW YORK, June 11, 1874.

To DR. STEPHEN SMITH,
Chairman Sanitary Committee:

SIR—I beg leave to report that I have inspected and surveyed the slaughter-houses of this city, also those of the Central Stock-Yard and Transit Company, at Jersey City, and in the town of Kearney, on the Hackensack river.

There are twenty-one slaughter-houses on the east and thirty-three on the west side of the city, below Forty-eighth street.

According to the statistics of the New York Live Stock Market, and the accounts of the butchers, the number of stock killed by the butchers during the last year, in this city, is as follows:

Cattle	330,500
Sheep	1,000,000
Hogs	1,200,000
Calves	100,000

Making a daily average of—

Cattle	1,100
Sheep	3,300
Hogs	4,000
Calves	334

The space usually allotted to a butcher, in most of the slaughter-houses of this city, for killing and hanging cattle, is called a baulk, and occupies a floor-space of 10 x 50 feet, exclusive of yard-room for the temporary storing of the live cattle; for the latter purpose additional space of 15 or 20 square feet is allowed for each animal. One set of butchers in the smaller establishments usually kill and prepare, ready for market, on an average, 25 beeves per day; to kill and dress one bullock, ready for market, requires 20 to 30 minutes.

The greater number of the slaughter-houses above referred to are ill-contrived and dilapidated ; the same space could be utilized to afford greater facilities for the slaughtering and storing of stock.

A space of 15 feet in width affords ample room for two baulks, and, making each baulk 60 feet deep, would give slaughtering and hanging room for 40 cattle per day ; add to this a space of 15 x 40 feet, to be used for a pen, in which the cattle are placed previous to being slaughtered, would give room for 40 to 50 cattle. The space usually allowed for this purpose I have found to be from 11 to 15 square feet for each animal. It appears, then, that in a space of 15 x 100 feet ample room is afforded for slaughtering, hanging, and yarding 40 cattle.

A block of ground 200 x 400 feet would afford facilities for slaughtering, hanging, and the necessary pen or yard space of 4,000 cattle per day, or nearly three times the capacity that is required by the butchers of this city during any day for the past year.

At the slaughter-house of the Central Stock-Yard and Transit Company, at Jersey City, I found that a space of 15 x 80 feet was required for yarding, slaughtering, and hanging 50 cattle per day.

The same company, in a space of 300 x 400 feet, afford accommodation for the reception, feeding, and watering of 20,000 and the slaughtering and hanging of 5,000 sheep, so that it is safe to assume that, in a space of 200 x 300 feet, 5,000 sheep can be daily yarded, slaughtered, and hung up, which is more than is required by all of our butchers in this line of business.

During the past year the daily average of sheep-slaughtering in this city has been 3,300, so that, in the same space, sufficient room would be left to do all slaughtering of calves required.

This, the sheep and calf slaughtering is mostly done in the second stories.

For hog-slaughtering a space of 1,312 square feet is required for a tub and bench for one set of slaughterers, and 2½ square feet of hanging-room for one hog ; if the baulks for hogs are made in double tiers, one above the other, then two hogs can be placed in a floor-space of 2½ square feet. One set of hog-slaughterers usually kill and dress 200 hogs per hour ; and, five hours being their working time, one set of men deliver 1,000 hogs per day, or one-fourth of the number of the entire daily supply furnished by all the butchers.

Assuming, then, a ground space of 200 x 350 feet for a hog slaughtering-house 2 stories in height, the upper floor to be used for yarding and killing, the lower for dressing, weighing, and hanging ; the upper floor containing 70,000 square feet, and each hog requiring less than 7 square feet, there would be room for more than 10,000 hogs.

Assuming the lower floor to have a central space of 60 x 350 feet, room would be afforded in this for 16 tubs and benches and 16 sets of slaughterers. On each side of this central space would be 70 x 350 feet of hanging room, capable of having 400 baulks ; each baulk being 70 feet deep would afford hanging room for 42 hogs, and the 400 baulks would hold 16,800 hogs, or more than four times as much as required by all the hog-slaughterers of New York.

The above demonstrates that all the slaughtering of cattle, sheep, and calves required by the slaughterers of New York can be done in a building 300 x 400 feet and the hog-slaughtering in a building of 200 x 300 feet. These buildings could have basements where there would be ample room for the salting of the hides and collecting all offal. A building of 100 x 100 feet, 3 stories in height, and a basement fitted up with the most approved apparatus, would be sufficiently large to admit of the fat melting and rendering being done for all of the slaughterers' offal.

In addition to the meat supplied by the New York butchers, the Central Stock-Yard Co. slaughtered at their abattoir at Jersey City for the New York market, during the past year, 200,000 cattle, 300,000 sheep, and 600,000 hogs, and from personal observation and survey I have found that this abattoir is worked to less than one-half of its capacity, and could do all the slaughtering to supply the demands of the New York, Brooklyn and Jersey City markets.

* * * * * * * *

Respectfully submitted,

CARL PFEIFFER,
Consulting Sanitary Architect,
Health Department.

REPORT ON SMOKY CHIMNEYS.

New York, October 25, 1875.

W. De F. Day, M. D.,
Sanitary Superintendent:

Sir—I have the honor to submit the following report:

A smoky chimney in a crowded neighborhood is a great nuisance, and is commonly recognized as such by its owner as well as by his neighbors. How to remedy such a nuisance, short of abolishing the chimney altogether, is a problem whose solution is far from easy.

The disagreeable emanations from the chimneys of factories may be classed under two heads: 1st, those which come from the article manufactured, or which are evolved during and in consequence of the process of manufacture, and 2d, those which come from the furnace of the building, and are the direct result of the combustion taking place therein. Emanations of the first class are, for the most part, acid, alkaline, or metallic, and are usually described as fumes, while those of the second class consist largely of carbon, and are called smoke. The former, by proper apparatus, can usually, with care, be collected and precipitated in some way, and prevented from escaping into the surrounding atmosphere in any great quantity. Similar attempts to prevent the escape of smoke interfere with the draught of the furnace, and have only accomplished their object perfectly when they have put out the fire. It is with the smoke alone that this report has to deal.

It is probably impossible in the present state of science to construct a furnace so that every particle of fuel introduced therein shall be entirely consumed. The process of combustion requires a constant supply of fresh air, and the removal of the previous supply by draught necessarily carries with it such unconsumed particles of carbon as are light enough to float in the air. How can this unconsumed portion be prevented from leaving the chimney?

The smoke-consuming appliances heretofore constructed have either aimed to burn the smoke by causing it to pass over a heated surface after leaving the furnace chamber, or to induce a more rapid and complete combustion by the introduction of fresh air at the further end of the chamber, or to combine both methods. In other words, their object has been the retention of the column of smoke for a longer time in contact with a surface kept at a high temperature, and the furnishing a supply of oxygen in excess of that which would be supplied by the ordinary draught of the furnace. Smoke-consumers are theoretically good things, and probably, if properly managed, always mitigate the nuisance somewhat, but they do not entirely abate it. And why not?

I have satisfied myself that the degree of the nuisance depends largely upon the character of the fuel used. The more solid, heavy, and coherent the fuel, the less probability of the escape of unconsumed particles. Anthracite coal causes very little smoke. It is consumed at a red heat, which does not separate much of it in the form of fine particles. Wood causes much more smoke, especially if it be green, when the water it contains absorbs so much heat that a considerable portion of the carbon is not heated to the point of ignition or complete combustion, and passes off as smoke. Very light and loose matter, like shavings and paper, or dry leaves, creates a great deal of smoke on account of its lightness. A considerable quantity of it is whirled away by a powerful draught before it is half consumed, and it passes out of the chimney, not only in the form of smoke, but in flakes or cinders. Some of this may be disposed of by a good smoke-consumer; some may be precipitated by a jet of steam or water thrown into the chimney, though this latter method would clog the flue with soot so rapidly as to greatly interfere with the business of the factory. But in spite of all the methods which may be adopted to prevent the escape of smoke where such fuel is used, there will still be enough to create a nuisance and constitute a permanent and valid cause of complaint to those who live or work in the vicinity.

The complaints against smoky chimneys are usually made in the case of box factories or sawing and planing mills. In these places vast quantities of sawdust and shavings accumulate, and are used as fuel in the furnace of the factory, partly as a matter of economy and partly to get rid of a mass of material which would otherwise constantly endanger the safety of the building. This fuel possesses two good qualities—it is easy of ignition and burns so rapidly as to evolve all its heat in a very short time. On the other hand it is the very kind of fuel which has been spoken of above as causing the greatest trouble in the neighborhood. It is bulky, light, porous, and the extreme rapidity of its combustion necessitates its frequent renewal. In fact, for a large furnace the stoker is obliged to be shoveling in fuel almost continually. At every fresh addition a large quantity passes away as smoke ; and hence, from every chimney where such fuel is used, heavy black clouds of smoke roll out at short intervals, which, whenever the barometric pressure is light, fall down into the street and fill the houses in the neighborhood. The people who live near by are compelled to close their doors and windows, and those who are passing in the street choke and cough and rub their eyes, so that one would almost think the whole population of the district invalid.

The owners of these factories, as a rule, are disposed to do everything in their power to abate the nuisance. When spoken to upon the subject they say : " I know it is a nuisance, but I cannot help it. I am willing to do anything or incur any expense that promises to remedy it. But smoke-consumers are of no use ; I have tried them all. I have spent many hundred dollars upon them and the nuisance is as bad as ever. What can I do ? " And when they say this they speak the truth, though perhaps with some exaggeration.

Smoke-consumers have been extensively introduced, in compliance with orders from the Board of Health, but they seem to accomplish little beyond a mitigation of the nuisance, and this is often only temporary. Every kind of smoke-consumer requires constant attention. The openings through which air is admitted, or the heated surfaces over which the smoke is made to pass, very soon become clogged or covered with soot and ashes and practically useless, and engineers are very negligent in cleaning them, yet the stokers and I have met with many instances in which a smoke nuisance had been so far abated by the introduction of a proper apparatus, that for several months thereafter no complaints were made against it. Sooner or later, however, the nuisance becomes as bad as ever, and on investigation it is found that the apparatus has become so clogged as to even interfere with the furnace draught and be worse than nothing. A thorough cleaning then mitigates the nuisance for another period of several months. A smoke-consuming apparatus needs as much care as the bed of the furnace, but rarely gets it. This negligence of engineers accounts in some degree for the disesteem in which smoke-consumers are held by most manufacturers.

Notwithstanding the mitigation of the nuisance which can undoubtedly be brought about by a good smoke-consuming apparatus, properly understood and managed, there are but two ways of radically abolishing this great and growing nuisance. One is to treat factories of this class as the slaughter-houses have been treated, and compel them to leave the city or move to the river front where they would be less of a nuisance. The other is to compel a change of fuel. In my opinion these are the only methods of putting an end to the ceaseless complaints of citizens in this regard. If coal were used for fuel the material now burned could be removed and used for other economic purposes, *e. g.*, paper-making or kindling wood manufacture.

The radical measures here proposed would involve questions of such magnitude that I have not been willing to take the responsibility of recommending such sweeping changes. I have preferred to say what I had to say in this form, and transmit it to you for your consideration.

Respectfully submitted,

ROGER S. TRACY, M. D.,
Sanitary Inspector.

INDEX

TO

ANNUAL REPORTS FOR 1874 AND 1875.

Abattoir, alleged a monopoly designed to benefit the few, 773; business of slaughtering in this city is so great in amount that it cannot be conducted in, 772.
Abattoirs or slaughter-houses, co-operative, sanitary advantages of, 775; properly conducted tend to the purity and preservation of meat, 777.
Accidents, 579.
Acid, carbolic, 248; cresylic, 249; salicylic, 249; salicylic, and pure membrane, inoculation of muscular tissue with mixture of, 691, 693; salicylic, and putrefying tongue scrapings, inoculation of muscular tissue with mixtures of, 698; salicylic, and tongue scrapings, inoculation of muscular tissue with mixture of, 697; salicylic, and vaccine virus, inoculations of, 709; salicylic, experiments to test the power of, to prevent the development of bacteria in putrefiable fluids, 710; salicylic, hypodermic injection of, dissolved in aqueous solution of sodic phosphate, 707; salicylic, inoculations of, 707; solid salicylic, inoculation of muscular tissue with, 707.
Ackerman, W. P., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Adams, J. L., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Adulteration of milk, 64.
Advantages of location of slaughter-houses, 781.
Air, 650.
Alcohol, boiling absolute, inoculation of solid residue from putrid liver-infusion, after evaporation by boiling and treatment with, 705.
Alcoholic solution, hypodermic injection of, from residue of evaporated putrid liver-infusion, 706.
Alcoholism and intemperance, 567.
Alvord, G., appointed Inspector of Fruit, 80.
Amendments to the Record, 71.
Animals, dead, and offal, removal of, 10; other, and dogs, hydrophobia in, and the sanitary precautions against its transmission to the human race, 716; slaughtering, report of the Sanitary Committee on the concentration and regulation of the business of, 764.
Annual rate of increase of the population, 258.
Apoplexy, 579.
Appendix, 784.
Appointments, 1; resignations and promotions, 77.
Aqueous infusion, filtered, of diphtheritic membrane, inoculation of muscular tissue with, 675; of diphtheritic membrane, inoculation of cornea with, 674; of diphtheritic membrane, inoculation of muscular tissue with boiled, 675; of membrane, inoculation of cornea with, 672; of pure membrane, hypodermic injection of, 688; of pure membrane, hypodermic injection of, after filtration through a porous clay cylinder, 681, 683, 685; of pure membrane, hypodermic injection of, after filtration through paper (double filter), 689; of pure membrane, inoculation of muscular tissue and cornea with, 675; of pure membrane, ten days old and putrid, hypodermic injection of, 686; of pure membrane, unfiltered, hypodermic injection of, 681, 684, 685.
Architect, Consulting Sanitary, report of, 786.
Areas and yards, 228.
Articles infected, 81.
Ashes, 13; and garbage, 208; street sweepings and garbage, disposal of, 12.
Assistant Sanitary Inspectors, reports of, 184, 221, 224 226, 229, 231, 232, 233, 649.
Assistant Sanitary Superintendent, report of, 784.
Attorney and Counsel, bureau of, 70; report of, 637.
Atwater, C. H., Assistant Sanitary Inspector, 77, 79; report of, 221.
Avenue, Fourth, improvement, 58.

Bachelors and spinsters, 1874, 604; 1875, 604; and widows, 1874, 605; 1875, 605.
Bacteria in putrefiable fluids, experiments to test the power of salicylic acid, to prevent the development of, 710.
Bad results following vaccination, 135.
Basements and cellars, 219, 227, 231.
Basins, receiving, 61.
Baths, public, 209.
Bazin, John H., appointed clerk, 79.
Berkwick, Joseph L., messenger, 77.
Birmingham, E. S., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Birth-rate, 262.
Births, 72, 582; still-, 265, 613.
Blood and offal, utilizing, 46.
Board, orders of the, 3; organization of the, 1.
Boetzkes, E., appointed Temporary Vaccinator, 79.
Bones and old rags, 228.
Bosworth, Frank, appointed Assistant Sanitary Inspector to Vaccinating Corps, 78; temporarily to Vaccinating Corps, 80.
Bowers, Mrs. J., appointed Matron at Reception Hospital, 79.
Brennan, Louis T., appointed clerk to Vaccinating Corps, 78.
Breweries, 214.
Bright's disease, 574.
Brook, Mill, 62.
Brownlee, J. J., appointed temporarily to Vaccinating Corps, 80.
Bryant, Jos. D., report of, 205; Sanitary Inspector, 76.
Buildings, dangerous, 8, 159; new, changes, 230; other, and their uses, houses of prostitution, 207; public, 219.
Bulkheads and piers, 187.
Bureau of Attorney and Counsel, 70.
Bureau of Vital Statistics, 70; report of the Deputy Register for 1874–75, 582; report of the Register, 257.
Bureau, Sanitary, 66.
Burial of the dead, permits issued during the year 1875 for, and for the interment of still-born infants, 621; permits, 625.
Bush, E. F., appointed Temporary Vaccinator, 79.
Butchers' offal and refuse, nuisance created by the carriage of, will forever be abated, 779.

Calf's liver, inoculations of putrid infusion of, 705.
Campbell, Robert C., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Cancer, 572.
Capillary tubes, directions for the use of virus in, 149.
Carbolic acid, 248.
Care of patients, 81.
Cars, street, 57, 179.

Cattle and meats, facilities would be afforded for the thorough inspection of, 775; and sheep, driving of, 43; driving in the streets, the nuisance created by, and the carriage of butchers' offal and refuse will forever be abated. 779.
Causes of death, notes on the chief, 552; zymotic, share of, in the total mortality in New York, 565.
Cellar dwellings, 7.
Cellars, 201, 206; and basements, 219, 227, 231; and yards, disinfection of, 9; vacation of, 158; yards and privies, disinfection of, 239.
Census, in June, 1875, 263; in 1875, the child population as found by the, 259.
Chandler, Charles F., Ph. D., Commissioner of Health and President of the Board, 1.
Changes, new buildings, 230.
Chief additional causes of the so-called "gas nuisance," 178.
Child-birth, 579.
Child population, as found by the census in 1875, 259.
Children mortality, 55, 56, 107, 109, 110, 260, 268, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 552, 556, 576, 578.
Chimneys, smoky, report on, 789.
Cholera, 306.
Cigars, report on the manufacture of, in tenement-houses, 649.
Circulars and placards, distribution of, as a means of increasing vaccination, 147.
City departments, 75; population, classification and distribution of, as exhibited by the census in June, 1875, 263.
City Sanitary Inspector, 76.
Classification and distribution of the city population as exhibited by the census, in June, 1875, 263.
Cleaners, gut, 213.
Cleaning, gut, fat-melting, hide-curing, and other offensive kinds of business, nuisance of, growing out of slaughtering, abated by concentration, 780; street, 11, 183.
Cleanliness, 651; general pavement of streets, 230; the entire territory occupied by slaughtering could be preserved in a much greater state of, than that of any one of the single establishments now in use, 779.
Clerks of the board, 77.
Clothing, etc., infected, 49.
Coal yards, 232.
Code, the Sanitary, 3, 160.
Cohn's solution, decomposed, hypodermic injection of, 701, 703; hypodermic injection of, after filtration through many thicknesses of paper, 703; hypodermic injection of, after filtration through porous clay, 702; hypodermic injection of, after thorough aeration, 704; hypodermic injection of lower stratum of, 701; inoculations of, 700; inoculation of muscular tissue with sediment from bottle of, 700.
Comfort, J. F., Assistant Sanitary Inspector, 77.
Comfort, John E., report of, 224.
Commercial disinfectants, 255.
Committee, Sanitary, report of, on the concentration and regulation of the business of slaughtering animals, 764.
Complaints and reports, 196, 199, 202, 205, 210, 212, 216, 217, 218, 220, 223, 226, 229, 233.
Concentration and regulation of the business of slaughtering animals, report of the Sanitary Committee on, 764; and removal, time allowed for, must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss, 774; of slaughtering as proposed will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of business growing out of slaughtering, 780; or removal of slaughter-houses, objections to, considered, 766.
Cone, T. E., appointed Examiner of Death Certificates, 79.
Conjunctiva and cornea, inoculation of, with reddened mucous membrane of trachea. 673.
Conover, J. C., appointed temporarily Assistant Sanitary Inspector to Vaccinating Corps, 78; temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Constitutional diseases, 568.
Contagious and other diseases, 195, 216.
Contagious diseases, 47, 192, 199. 202, 203, 205, 208, 210, 212, 217, 218, 220, 221, 223, 226, 228, 229, 232, 233, 234, 556; disinfection of, 49; disinfection of houses infected with, 234; of horses, 52; report of, for 1874–1875, 82.
Cooney, William, appointed to Disinfecting Corps, 80.
Co-operative slaughter-houses or abattoirs, sanitary advantages of, 775.
Cornea and muscular tissue, inoculation of, with aqueous infusion of membrane, 676; inoculation of, with aqueous infusion of pure membrane, 675; inoculation of, with pure membrane, 675.
Cornea, inoculation of, and conjunctiva, with reddened mucous membrane of trachea, 673; with aqueous infusion of diphtheritic membrane, 674; with aqueous infusion of membrane, 672; with kidney tissue, 673; with pure membrane, 672, 674.
Corps, Disinfecting, 69, 77, 81; Vaccinating, 50.
Counsel and Attorney, bureau of, 70; report of, 637.
Cran, T, M., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Cresylic acid, 249.
Croton water, 63; report on, 641.
Crusts, vaccine, directions for the use of, 149.
Curing, hide, fat-melting, gut-cleaning, and other offensive kinds of business, nuisance of, growing out of slaughtering, abated by concentration, 780.
Curtis, Edward, appointed to investigate diphtheria, 78; report of investigations into the pathogeny of diphtheria, conducted by, 657.
Cushman, Joseph, appointed Assistant Inspector, 77.
Cymancha maligna, 565.

Dalrymple, A. P., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78; Temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Daly, Guy D., appointed Assistant Resident Physician at Riverside Hospital, 80; Sanitary Inspector to Vaccinating Corps, 78.
Danfield, Robert, Jr., Disinfecting Corps, 77.
Dangerous buildings, 8, 159.
Day, the deaths in the year in each, 271.
Day, Walter De F., report of, 76; Sanitary Superintendent and City Sanitary Inspector, 76.
Dead animals and offal, removal of, 10.
Dead, burial of, permits issued during the year 1875, and for interment of still-born infants, 621.
Death, notes on the chief causes of, 552.
Deaths, 72; each day in the year, 271; for 1874–1875, 636; from phthisis, occupation of victims, 570; of persons between 15 and 60 years of age in this city in 1875, 579; violent, 575.
Delafield, Francis, report on pneumonia, 713.
Delaney, James J., appointed Physician at Riverside Hospital, 79.
De Luna, A. B., appointed Assistant Inspector to Vaccinating Corps, 78.
De Marmon, P., Assistant Sanitary Inspector, 77.
Departments, The City, 75.
Deputy Register of Vital Statistics, report of, for 1874–75, 582.
Dessau, S. H., appointed temporarily to Vaccinating Corps, 80.
Developmental diseases, 575.
Devitt, John J., Disinfecting Corps, 77.
Diarrhœal and other zymotic diseases, 565; maladies, 306–325.
Difficulties encountered in collecting virus, 146.
Diminution of the large surface area now occupied by the business of slaughtering to the least practicable space, 779.
Diphtheria, 52, 87, 232, 306–325, 560; general report on, 658; measles, scarlatina, and small-pox, sanitary regulations against, 81; observations on, fatal cases of, 564; pathogeny of, report of investigations into, conducted by Edward Curtis and Thomas Satterthwaite, 657; record of experiments in, 671; typhoid fever, etc., 209.
Diphtheritic matter, inoculations with, 671.
Diphtheritic membrane, inoculation of cornea with aqueous infusion of, 674; inoculation of muscular tissue with boiled aqueous infusion of, 675; inoculation of muscular tissue with filtered aqueous infusion of, 675.
Directions for the use of quill slips, 149; vaccine crusts, 149; virus in capillary tubes, 149.

Directions, general, to be followed after vaccination, 114.
Diseases, constitutional, 568; developmental, 575; local, 573; of horses, 52; of the nervous system, 573; of the urinary system, 574; zymotic, 48, 82, 188, 190, 191, 195, 199, 203, 209, 210, 212, 217, 221, 223, 226, 229, 232, 233, 234, 274–295, 306–327, 338–351, 404–411, 556; zymotic, and diarrhœal, 565; of child-birth, 579.
Diseases, contagious, 47, 192, 199, 202, 203, 205, 208, 210, 212, 217, 218, 220, 221, 223, 226, 228, 229, 232, 233, 234, 566; and other, 195, 216; disinfection of, 49; report of, for 1874, 1875, 82.
Disinfectants and disinfection, notes on, 243; commercial, 255.
Disinfecting Corps, 69, 77, 81.
Disinfection and disinfectants, notes on, 243.
Disinfection of contagious diseases, 49; houses infected with contagious diseases, 234; privies, 9; privies, yards and cellars, 239, street gutters 12; street sweepings and disinfection of the Harlem Flats, during the summer of 1875, 242; streets and street gutters, 237; yards and cellars, 9.
Disinfection, special, of premises, vacant lots, stagnant water, etc., 242.
Disposal of street sweepings, ashes and garbage, 12.
Distribution and classification of the city population as exhibited by the census in June, 1875, 263; and sales of vaccine virus, 149.
Distribution of circulars and placards as a means of increasing vaccination, 147; vaccination notices, 241.
District, the new, 182.
Dock, offal, 213.
Dogs and other animals, hydrophobia in, and the sanitary precautions against its transmission to the human race, 716.
Drainage and sewerage, 227; house, etc., 221; house, and plumbing, 153; house, sewer connections, plumbing, etc., 8; roof leakage, ventilation, etc., 195; tidal lands, sunken lots, 62.
Drains and waste, 204.
Driving cattle in the streets, nuisance created by, and the carriage of butchers' offal and refuse will forever be abated, 779; of cattle and sheep, 43.
Drowning persons, rescue of, 53.
Drum, Matthew, appointed on Disinfecting Corps, 78.
Dry lime process, 177.
Dudley, J. G., appointed clerk, 79.
Dump, manure, 214.
Dwellings, 231; cellars, 7; private, 231.

Ellis, S. B., clerk, appointed to Vaccinating Corps, 78.
Emerson, N. B., Assistant Sanitary Inspector, 77; report of, 229; report on the manufacture of cigars in tenement-houses, 649.
Endemann, Herman, Chief Disinfecting Corps, 77; report of, 234.
Engelman, Bernard, appointed Assistant Resident Physician at Riverside Hospital, 80.
Enteric fever, 579.
Establishments, manufacturing, offensive odors from, 167.
Ewing, W. A., Assistant Sanitary Inspector, 77; report of, 217.
Expenditures, 74.
Experiments to test the power of salicylic acid to prevent the development of bacteria in putrefiable fluids, 710; record of, in inocculations, etc., 671.

Facilities would be afforded for the thorough inspection of cattle and meats, 775.
Factories, 202; and workshops, 204, 206, 231; and workshops, stores, and warehouses, 219.
Farcy and glanders, 150.
Fatal cases of diphtheria, observations on, 564.
Fat and tallow rendering, 164; melters, 213; melting, 45, 198; melting, hide-curing, gut-cleaning, and other offensive kinds of business, nuisance of, growing out of slaughtering, abated by concentration, 780; rendering, 206.
Fernhead, William B., clerk, 77.
Fever, enteric, 579; scarlet, 86; scarlet, patient, inocculation of muscular tissue with membrane from, 690; typhoid, 52, 86, 209, 579.
Flats, Harlem, 13, 179; disinfection of the, and disinfection of street sweepings during the summer of 1875, 242.
Fleming, M. J., appointed Assistant Inspector to Vaccinating Corps, 78.
Flynn, Y. W. P., appointed Assistant Inspector to Vaccinating Corps, 78.
Food, 651.
Fourth avenue impovement, 58.
Fowler, George B, Assistant Sanitary Inspector, 77; report of, 233.
Fowler, John H., appointed Inspector of Fruit, 80.
Fowls, 228.
Fruit, unripe, inspection of, 164.

Gallagher, Edward J., appointed clerk, 79.
Garbage, 13, 194; and ashes, 208; ashes and street sweepings, disposal of, 12.
Gardner, Hugh, President of the Board of Police, 1.
Gas-light company, the Harlem, 176; the Manhattan, 177; the Metropolitan, 178; the Mutual, 177; the New York, 176; the Suburban, 178; the Westchester, 176.
Gas nuisance, chief additional causes of the so-called, 178.
Gas purifiers, 175.
Gas works of New York, 173.
General directions to be followed after vaccination, 114; report on diphtheria, 658.
Glanders and farcy, 150.
Goldschmidt, S. A., Ph. D., report of, 173.
Gratuitous distribution and sales of vaccine virus, 149.
Gray, L. C., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Green, Paris, sale of, 160.
Griswold, James R., chief clerk, 77.
Gut-cleaners, 213; cleaning, fat-melting, hide-curing, and other offensive kinds of business, nuisance of, growing out of slaughtering abated by concentration, 780.
Gutters, disinfection of street, 12; streets and sidewalks, 220; street, and streets, disinfection of, 237.

Hall, W. E., Sanitary Inspector, 76.
Hamilton, A. McL., Assistant Sanitary Inspector, 76; report of, 212.
Hammond, C. Y., Assistant Sanitary Inspector, 77.
Harlan, B. J., appointed Temporary Vaccinator, 80.
Harlem flats, 13, 179; disinfection of, and disinfection of street sweepings during the summer of 1875, 242.
Harlem Gas-light Company, 176.
Harris, Elisha, M. D., report of, 257.
Health, the public, it is alleged that, is not injuriously affected by slaughter-houses and the methods by which the slaughtering and necessary accessories of that business are at present conducted, 771.
Healy, James R., appointed Assistant Sanitary Inspector, 77; temporarily to Vaccinating Corps, 80; report of, 232.
Healy, J. B., appointed Temporary Vaccinator, 79.
Heart, hypertrophy of, 579; valvular disease of, 579.
Heuel, F., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Hide-curing, fat-melting, gut-cleaning, and other offensive kinds of business, nuisance of, growing out of slaughtering, abated by concentration, 780.
Horses, contagious diseases of, 52.
Hospital, Riverside, 94.
House drainage, etc., 221; and plumbing, 153; sewer connections, plumbing, etc., 8.
Houses infected with contagious diseases, disinfection of, 234; of prostitution, other buildings and their uses, 207.
Houses, slaughter, 194, 213; advantages of location, 781; alleged that the public health is not injuriously affected by, and the methods by which slaughtering and necessary accessories of that business are at present conducted, 771; and slaughtering, 166; and slaughtering, report on, 784, 786; co-operative, or abattoirs, sanitary advantage of, 775; objections to concentration or removal considered, 766; present condition of, 765; present location of, 764; removed above Fortieth street, Board of Health bound not to disturb, 768; time for removal or concentration of, must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss, 774.

Houses, tenement, 6, 152, 186, 198, 200, 204, 206, 214, 219; local superintendence in, 192; report on the manufacture of cigars in, 649.
Hughes, Bernard, Assistant Sanitary Inspector, 76; report of, 210.
Human tongue, inoculation of scrapings from, 694.
Husted, J. N. appointed Assistant Sanitary Inspector to Vaccinating Corps, 78; Examiner of Death Certificates, 79.
Hydrophobia, 53, 151; in dogs and other animals, and the sanitary precautions against its transmission to the human race, 716.
Hypertrophy of heart, 579.
Hypodermic injection of alcoholic solution, from residue of evaporated putrid liver-infusion, 706; aqueous infusion of pure membrane, 688; aqueous infusion of pure membrane after filtration through a porous clay cylinder, 681, 683, 685; aqueous infusion of pure membrane after filtration through paper (double filter), 689; aqueous infusion of pure membrane ten days old and putrid, 686; decomposed Cohn's solution, 701, 703; decomposed Cohn's solution after filteration through many thicknesses of paper, 703; decomposed Cohn's solution after filtration through porous clay, 702; decomposed Cohn's solution after thorough aeration, 704; lower stratum of decomposed Cohn's solution, 701; putrid infusion after boiling, 687; putrid liver-infusion, 705; putrid liver-infusion after filtration through paper, 705; putrid liver-infusion after filtration through porous clay, 705; putrid infusion of pure membrane, after filtration through paper (single filter), 687; salicylic acid dissolved in aqueous solution of sodic phosphate, 707; simple aqueous solution of sodic phosphate, and of pure water as control experiments, 709; unfiltered aqueous infusion of pure membrane, 681, 684, 685.

Improvement, Fourth avenue, 58.
Increase of the population, annual rate of, 258.
Infant mortality, 55, 56, 107, 109, 110, 260, 268, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 552, 556, 576, 578.
Infants, still-born, permits issued during the year 1875, for the interment of, and for the burial of the dead, 621.
Infected articles, 81; clothing, etc., 49.
Infectious and contagious diseases, 195.
Injection, hypodermic, of alcoholic solution from residue of evaporated putrid liver-infusion, 706; aqueous infusion of pure membrane, 688; aqueous infusion of pure membrane after filtration through a porous clay cylinder, 681, 683, 685; aqueous infusion of pure membrane after filtration through paper (double filter), 689; aqueous infusion of pure membrane ten days old and putrid, 686; decomposed Cohn's solution, 701, 703; decomposed Cohn's solution, after filtration through many thicknesses of paper, 703; decomposed Cohn's solution after filtration through porous clay, 702; decomposed Cohn's solution after thorough aeration, 704; lower stratum of decomposed Cohn's solution, 701; putrid liver-infusion, 705; putrid liver-infusion after filtration through porous clay, 705; putrid liver-infusion after filtration through paper, 705; putrid infusion after boiling, 687; putrid infusion of pure membrane after filtration through paper (single filter), 687; salicylic acid dissolved in aqueous solution of sodic phosphate, 707; simple aqueous solution of sodic phosphate, and of pure water, as control experiments, 709; unfiltered aqueous infusion of pure membrane, 681, 684, 685.
Inoculation of cornea and conjunctiva with reddened mucous membrane of trachea, 673.
Inoculation of cornea and muscular tissue with aqueous infusion of membrane, 676; pure membrane, 675; aqueous infusion of pure membrane, 675.
Inoculation of cornea with aqueous infusion of diphtheritic membrane, 674; membrane, 672; kidney-tissue, 673; pure membrane, 672, 674.
Inoculation of decomposed Cohn's solution, 700.
Inoculation of muscular tissue with boiled aqueous infusion of diphtheritic membrane, 675; filtered aqueous infusion of diphtheritic membrane, 675; membrane from scarlet fever patient, 690; muscular tissue with mixture of pure membrane and salicylic acid, 691, 693; mixtures of putrefying tongue-scrapings and salicylic acid, 698; mixture of tongue-scrapings and salicylic acid, 697; pure membrane, 674, 676, 677, 679, 682, 685, 690, 691, 692; pure tongue-scrapings, 694, 695; putrefying tongue-scrapings, 698; sediment from bottle of decomposed Cohn's solution, 700; solid salicylic acid, 707.
Inoculation of scrapings from the healthy human tongue, 694; solid residue from putrid liver-infusion after evaporation by boiling, and treatment with boiling absolute alcohol, 705.
Inoculations of putrid infusion of calf's liver, 705; salicylic acid, 707; salicylic acid and vaccine virus, 709; sand, 706.
Inoculations with diphtheritic matter, 671.
Inspection, facilities would be afforded for the thorough, of cattle and meats, 775; of unripe fruit, 164; of vessels, 48.
Inspections, 195, 202, 205, 210, 211, 216, 218, 220, 223, 226, 229, 230, 232, 233.
Inspector, City Sanitary, 76.
Inspectors, Assistant Sanitary, reports of, 184, 221, 224, 226, 229, 231, 232, 233, 649; Sanitary, reports of, 14, 153, 173, 186, 188, 190, 191, 196, 199, 203, 205, 210, 212, 217, 219, 649, 716, 789.
Institutions, public, small-pox in, 146.
Intemperance and alcoholism, 567.
Iron method of purification, 176.

Janes, Edward H., Assistant Sanitary Superintendent, 76; report of, 89, 93, 162, 166, 784.
Janeway, Edward G., M. D., appointed successor to Dr. Stephen Smith, 1.
Janeway, T. J., appointed temporarily to Vaccinating Corps, 80; report of, 19.
Janeway, T. L., appointed Temporary Vaccinator, 79.
Joyce, R. A., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Judson, A. B., appointed Assistant Sanitary Inspector, 79; report of, 186; Sanitary Inspector, 76.

Kidney-tissue, inoculation of cornea with, 673.
Kiernan, Richard, Disinfecting Corps, 77.
Kind of virus used, 117.
Kitchen, E. W., appointed Assistant Sanitary Inspector, 79.

Laight Chas., appointed temporarily to Vaccinating Corps, 80.
Lands, tidal, sunken lots, drainage, 62.
Laudy, L. C., appointed to Special Analytical Service, 78.
Leakage, roof, ventilation, drainage, etc., 195.
Light, 651.
Lime process, the dry, 177.
Liquor stores, wholesale and retail, 207.
Liver, calf's, inoculations of, putrid infusion of, 705.
Liver infusion, evaporated putrid, hypodermic injection of alcoholic solution from residue of, 706; putrid, hypodermic injection of, 705; putrid, hypodermic injection of, after filtration through paper, 705; putrid, hypodermic injection of, after filtration through porous clay, 705; putrid, inoculation of solid residue from, after evaporation by boiling and treatment with boiling absolute alcohol, 705.
Livermore, F., appointed Assistant Inspector to Vaccinating Corps, 78.
Local diseases, 573; superintendence in tenement houses, 192.
Location, present, of slaughter-houses, 764; of slaughter-houses, advantages of, 781.
Lockwood, C. E., Assistant Sanitary Inspector, 76; report of, 219.
Lodge, Allott, clerk appointed to Vaccinating Corps, 78.
Lordly, J. E. M., appointed temporarily to Vaccinating Corps, 80.
Lots, sunken and vacant, 207; sunken, tidal lands, drainage, 62; vacant, 193; vacant, premises, stagnant water, etc., special disinfection of, 242.
Lyon, C., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.

McCauley, John, appointed clerk, 80; Inspector of Fruit, 80.
McDonald, Francis, appointed messenger, 78.
McGay, V. J., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
McGowan, Bartholomew, Disinfecting Corps, 77.
McMasters, H. G., appointed temporarily to Vaccinating Corps, 80.
McMasters, N. G., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78; appointed Temporary Vaccinator, 79.
McNally, John, appointed to Disinfecting Corps, 79.
McNamara, J., appointed clerk, 79.
Manhattan Gas-light Company, 177.
Manufacture of cigars in tenement-houses, report on, 649.
Manufacturing establishments, offensive odors from, 167.
Manure dump, 214; stable, 46, 159.
Markets and market-places, 206, 219; public, 59.
Marmon, P. De, Assistant Sanitary Inspector, 77.
Marriages, 72, 266, 598.
Matsell, George W., in July, 1874, succeeded Hugh Gardner as President of the Board of Police, and as a member of the Board of Health, 1.
Maxwell, E. A., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.
Measles, 306–325, 559; scarlatina, small-pox, and diphtheria, sanitary regulations against, 81.
Meat, abattoirs properly conducted, tend to the purity and preservation of, 777.
Meat, unwholesome, 64.
Meats and cattle, facilities would be afforded for the thorough inspection of, 775.
Medical practice, regulations of, 73.
Melters, fat, 213.
Melting, fat, 45, 198; hide-curing, gut-cleaning, and other offensive kinds of business, nuisance of, growing out of slaughtering, abated by concentration, 780.
Membrane, inoculation of cornea with aqueous infusion of, 672; aqueous infusion of, inoculation of muscular tissue and cornea with, 676; diphtheritic, inoculation of cornea with aqueous infusion of, 674; diphtheritic, inoculation of muscular tissue with boiled aqueous infusion of, 675; diphtheritic, inoculation of muscular tissue with filtered aqueous infusion of, 675; from scarlet fever patient, inoculation of muscular tissue with, 690; reddened mucous, of trachea, inoculation of cornea and conjunctiva with, 673; pure, and salicylic acid, inoculation of muscular tissue with mixture of, 691, 693; pure, hypodermic injection of aqueous infusion of, 688; pure, hypodermic injection of aqueous infusion of, after filtration through a porous clay cylinder, 681, 683, 685; pure, hypodermic injection of aqueous infusion of, after filtration through paper (double filter), 689; pure, hypodermic injection of putrid infusion of, after filtration through paper (single filter), 687; pure, hypodermic injection of unfiltered aqueous infusion of, 681, 684, 685; pure, inoculation of cornea and muscular tissue with, 675; pure, inoculation of cornea and muscular tissue with aqueous infusion of, 675; pure, inoculation of cornea with, 672, 674; pure, inoculation of muscular tissue with, 674, 676, 677, 679, 682, 685, 690, 691, 692; pure, ten days old and putrid, hypodermic injection of aqueous infusion of, 686.
Messenger of the Board, 77.
Metropolitan Gas-light Company, 178.
Milk, 639; the adulteration of, 64.
Mill Brook, 62.
Morgan, Robert C., clerk, 77.
Morris, Lewis, appointed clerk, 79.
Morris, Moreau, report of, 14.
Morris, S. F., appointed Assistant Sanitary Inspector, 79; report of, 188; Sanitary Inspector, 76.
Mortality, infant, and children, 55, 56, 107, 109, 110, 260, 268, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 552, 556, 576, 578; records of, 268; total, in New York, share of zymotic causes in the, 565.
Mucous membrane of trachea, inoculation of cornea and conjunctiva with, 673.
Murphy, Michael, appointed to Disinfecting Corps, 79.
Muscular tissue and cornea, inoculation of, with aqueous infusion of membrane, 676; and cornea, inoculation of, with aqueous infusion of pure membrane, 675; and cornea, inoculation of, with pure membrane, 675; inoculation of, with boiled aqueous infusion of diphtheritic membrane, 675; inoculation of, with filtered aqueous infusion of diphtheritic membrane, 675; inoculation of, with membrane from scarlet fever patient, 690; inoculation of, with mixture of pure membrane and salicylic acid, 691, 693; inoculation of, with mixtures of putrefying tongue-scrapings and salicylic acid, 698; inoculation of, with mixture of tongue-scrapings and salicylic acid, 697; inoculation of, with pure membrane, 674, 676, 677, 679, 682, 685, 690, 691, 692; inoculation of, with pure tongue-scrapings, 694, 695; inoculation of, with putrefying tongue-scrapings, 698; inoculation of, with sediment from bottle of decomposed Cohn's solution, 700; inoculation of, with salicylic acid, 707.
Mutual Gas-light Company, 177.

Nagle, John T., report of, 582.
Nealis, Thomas J., Assistant Sanitary Inspector, 77; report of, 153.
Nephria, 574, 579.
Nervous system, diseases of, 573.
Nesmith, R. D., appointed Assistant Inspector to Vaccinating Corps, 78.
New buildings, changes, 230.
New district, 182.
New York Gas-light Company, 176; the gas works of, 173.
Night-soil, removal of, 10.
Notes on disinfection and disinfectants, 243; the chief causes of death, 552.
Notice, small-pox, 148.
Notices, vaccination, distribution of, 241.
Nuisance created by cattle driving in the streets, and the carriage of butchers' offal and refuse will forever be abated, 779; gas, chief additional causes of the so-called, 178; of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of business growing out of slaughtering, abated by concentration, 780.
Nuisances, suburban, 47.

Objections to concentration or removal of slaughter-houses considered, 766.
Observations on the fatal cases of diphtheria, 564.
Occupation of those who died from phthisis, 570.
O'Connor, J. T., appointed Assistant Sanitary Inspector, 79.
Odors, offensive, from manufacturing establishments, 167.
Offal and blood, utilizing, 46; and dead animals, removal of, 10, and refuse, butchers' nuisance, created by the carriage of, will forever be abated, 779.
Offal dock, 213.
Offensive kinds of business, and fat-melting, gut-cleaning, and hide-curing, nuisance of, growing out of slaughtering abated by concentration, 780; odors from manufacturing establishments, 167; trades, 47.
Old rags and bones, 228.
Orders of the Board, 3.
Ordinance relating to slaughtering, 783.
Organization of the Board, 1.
Osborne, F. S., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.

Pardee, E. S., appointed Assistant Inspector to Vaccinating Corps, 78.
Paris green, sale of, 160.
Parks, public, 59.
Passmore, E. C., appointed Assistant Sanitary Inspector, 79.
Pathogeny of diphtheria, report of investigations into, conducted by Edward Curtis and Thomas E. Satterthwaite, 657.
Patients, care of, 81.
Pavement of streets, general cleanliness, 230.
Pavements, street, 60.
Paving, street, 203.
Penalties, suits for, 5.
Permits issued during the year 1875, for the burial of the dead, and for interment of still-born infants, 621; of burial, 625; of slaughter-houses to occupy their present locations, 768; sanitary, 68.
Perry, J. L., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79.

Pfeiffer, Carl, report of, 786.
Phillips, George R., Assistant Sanitary Inspector, 77.
Phosphate of soda, aqueous solution of, hypodermic injection of salicylic acid dissolved in, 707; hypodermic injection of simple aqueous solution of, and of pure water as control experiments, 709.
Phthisis, occupation of those who died from, 570.
Piers and bulkheads, 187.
Piffard, H. G., appointed Honorary Dermatalogist, 78.
Pipes, waste, 207; ventilation of, 193, 194, 198.
Placards and circulars, distribution of, as a means of increasing vaccination, 147.
Plumbago works, 166.
Plumbing and house drainage, 153; sewer connections, house drainage, etc., 8.
Pneumonia, 579; report on, 713.
Poisons, 160; the sale of, 66, 160.
Police, the Sanitary Company of, 69.
Population, annual rate of increase of, 258; city, distribution and classification of, as exhibited by the census in June, 1875, 263; nativity of, 627; of City of New York, 626; the child, as found by the census in 1875, 259.
Post, E. H., appointed Assistant Inspector to Vaccinating Corps, 78.
Post, W. H. B., report of, 191; Sanitary Inspector, 76.
Post, W. W., clerk, appointed to Vaccinating Corps, 78.
Practice, medical, regulations of, 73.
Precautions, sanitary, against the transmission of hydrophobia in dogs and other animals to the human race, 716.
Prejudices against vaccination, 142.
Premises, vacant lots, stagnant water, etc., special disinfection of, 242.
Prentice, W. P., report of, 637.
Present condition of slaughter-houses, 765; location of slaughter-houses, 764.
Preservation and purity of meat, abattoirs properly conducted tend to, 777.
Private dwellings, 231.
Privies, 220, 222; and water-closets, 207, 230; disinfection of, 9; yards and cellars, disinfection of, 239.
Privy vaults, 201; and water-closets, 193.
Process, the dry lime, 177.
Promotions, resignations, and appointments, 77.
Prostitution, houses of, other buildings and their uses, 207.
Protection afforded by vaccination, 138.
Public baths, 209.
Public buildings, 219.
Public health, it is alleged that, is not injuriously affected by slaughter-houses and the methods by which the slaughtering and necessary accessories of that business are at present conducted, 771.
Public institutions, small-pox in, 146.
Public markets, 59.
Public parks, 59.
Public schools, 58.
Public vaccinators, qualifications of, 144.
Pulmonalis, 568, 579.
Pulmonalis, phthisis, 568, 579.
Purcell, J. J., appointed Temporary Vaccinator, 80.
Purcell, Wm. J., appointed Assistant Sanitary Inspector in the Vaccinating Corps, 78, 79.
Purification, iron method of, 176.
Purifiers, 175.
Purity and preservation of meat, abattoirs properly conducted tend to, 777.
Putrefiable fluids, bacteria in, experiments to test the power of salicylic acid to prevent the development of, 710.
Putrefying tongue-scrapings, inoculation of muscular tissue with, 698; and salicylic acid, inoculation of muscular tissue with mixtures of, 698.
Putrid and pure membrane ten days old, hypodermic injection of aqueous infusion of, 686.
Putrid infusion, hypodermic injection of, after boiling, 687; of calf's liver, inoculations of, 705; of pure membrane, hypodermic injection of, after filtration through paper (single filter), 687.
Putrid liver-infusion evaporated, hypodermic injection of alcoholic solution from residue of, 706; hypodermic injection of, 705; hypodermic injection of, after filtration through paper, 705; hypodermic injection of, after filtration through porous clay, 705; inoculation of solid residue from, after evaporation by boiling and treatment with boiling absolute alcohol, 705.
Putrid sore-throat, 565.
Putzel L., appointed Temporary Vaccinator, 80.

Qualifications of public vaccinators, 144.
Quill slips, directions for the use of, 149.

Rags, old, and bones, 228.
Railroads steam, 57.
Rate, birth-, 262.
Rate of increase of the population, annual, 258.
Read, Ira B., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78; temporarily to Vaccinating Corps, 80.
Receipts, 73.
Receiving-basins, 61.
Record of experiments in inoculations, etc., 671.
Records, amendments to the, 71; of mortality, 268.
Refuse and offal, butchers', nuisance created by the carriage of, will forever be abated, 779.
Register, Deputy, of Vital Statistics, report of, for 1874–75, 582.
Regulation and concentration of the business of slaughtering animals, report of the Sanitary Committee on, 764.
Regulations, and rules, 2; of medical practice, 73; sanitary, against small-pox, scarlatina, measles, and diphtheria, 81.
Reid, J. J., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Reilly, Francis, appointed Inspector of Fruit, 80.
Removal of dead animals and offal, 10; night-soil, 10; the business of slaughtering above Fortieth street in obedience to the orders of the Board of Health in 1868, 768.
Removal, or concentration of slaughter-houses, objections to, considered, 766; time allowed for, must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss, 774.
Rendering, fat, 206; and tallow, 164.
Rennet salting, 213.
Report, general, on diphtheria, 658.
Report of A. B. Judson, 186; Allan McLane Hamilton, 212; Alex. Strong, 231; Aug. Viele, 196; Bernard Hughes, 210; Carl Pfeiffer, 786; C. E. Lockwood, 219; Chas. P. Russel, 716; C. H. Atwater, 221; Chas. F. Roberts, 203; contagious diseases for 1874–1875, 82; C. P. Russell, 190; E. G. Janeway, 19; E. H. Janes, 89, 93, 162, 166, 784; Elisha Harris, M. D., 257; Elwyn Waller, 184; Eugene B. Sanborn, 226; Francis Delafield, 713; Geo. B. Fowler, 233; George M. Van Nort, 17; H. Endemann, Ph. D., 234; investigations into the pathogeny of diphtheria, conducted by Edward Curtis and Thomas E. Satterthwaite, 657; James R. Healey, 232; John E. Comfort, 224; John T. Nagle, M. D., 582; Jos. D. Bryant, 205; Moreau Morris, 14; Nathaniel B. Emerson, 229; Roger S. Tracy, 199, 789; S. A. Goldschmidt, 173; S. F. Morris, 188; Stephen Smith, 764; the Assistant Sanitary Superintendent, 784; the attorney and counsel, 637; the consulting Sanitary Architect, 786; the Deputy Register for 1874–75 of the Bureau of Vital Statistics, 582; the Register of the Bureau of Vital Statistics, 257; the Sanitary Committee, 54, 87; the Sanitary Committee on the concentration and regulation of the business of slaughtering animals, 764; the Sanitary Superintendent, 76; Thomas J. Nealis, 153; W. A. Ewing, 217; Walter De F. Day, 76; W. H. B. Post, 191; W. P. Prentice, 637.
Report on Croton water, 641; pneumonia, 713; smoky chimneys, 789; the manufacture of cigars in tenement-houses, 649.
Reports and complaints, 196, 199, 202, 205, 210, 212, 216, 217, 218, 220, 223, 226, 229, 233.
Reports of Assistant Sanitary Inspectors, 184, 221, 224, 226, 229, 231, 232, 233, 649; of Sanitary Inspectors, 14, 153, 173, 186, 188, 190, 191, 196, 199, 203, 205, 210, 212, 217, 219, 649, 716, 789; on slaughtering and slaughter-houses, 784, 786.
Rescue of drowning persons, 53.
Resignations, appointments, and promotions, 77.
Results, bad, following vaccination, 135.
Retail and wholesale liquor stores, 207.
Reynolds, William, Disinfecting Corps, 77.

Right of this Board to remove the business of slaughtering, 767.
Riverside Hospital, 94.
Roberts, C. F., report of, 203 ; Sanitary Inspector, 76.
Roberts, W., appointed clerk at Riverside Hospital, 79.
Robie, J. W., appointed temporarily to Vaccinating Corps, 80.
Rockwell, H., appointed Assistant Inspector to Vaccinating Corps, 78.
Rodenstein, C. F., appointed Assistant Sanitary Inspector, 79 ; Assistant Sanitary Inspector, 77.
Roof leakage, ventilation, drainage, etc., 195.
Rules and regulations, 2.
Russel, C. P., report of, 190 ; on hydrophobia in dogs and other animals, and the sanitary precautions against its transmission to the human race, 716 ; Sanitary Inspector, 76.

Sale of Paris green, 160 ; poisons, 66, 160.
Sales and gratuitous distribution of vaccine virus, 149.
Salicylic acid, 249 ; and pure membrane, inoculation of muscular tissue with mixture of, 691–693 ; and putrefying tongue-scrapings, inoculation of muscular tissue with mixtures of, 698 ; and tongue-scrapings, inoculations of muscular tissue with mixture of, 697 ; and vaccine virus, inoculations of, 709 ; hypodermic injection of, dissolved in aqueous solution of sodic phosphate, 707 ; inoculations of, 707 ; solid, inoculation of muscular tissue with, 707 ; experiments to test the power of, to prevent the development of bacteria in putrefiable fluids, 710.
Salting, rennet, 213.
Sanborn, E. B., report of, 226 ; Assistant Sanitary Inspector, 77.
Sand, inoculations of, 706.
Sanitary advantages of co-operative slaughter-houses or abattoirs, 775 ; permits, 68 ; precautions against the transmission of hydrophobia in dogs, and other animals, to the human race, 716 ; regulations against small-pox, scarlatina, measles, and diphtheria, 81.
Sanitary Architect, Consulting, report of, 786.
Sanitary Bureau, 66.
Sanitary Code, 3, 160.
Sanitary Committee, report of, 54, 87 ; on the concentration and regulation of the business of slaughtering animals, 764.
Sanitary Company of Police, 69.
Sanitary Inspector, City, 76 ; Inspectors, Assistant, reports of, 184, 221, 224, 226, 229, 231, 232, 233, 649 ; Inspectors, reports of, 14, 153, 173, 186, 188, 190, 191, 196, 199, 203, 205, 210, 212, 217, 219, 649, 716, 789.
Sanitary Superintendent and City Sanitary Inspector, 76.
Sanitary Superintendent, Assistant, report of, 784 ; Superintendent, report of, 76.
Satterthwaite, Dr., appointed to investigate diphtheria, 78.
Satterthwaite, Thomas E., report of investigations into the pathogeny of diphtheria, conducted by, 657.
Scarlatina, 306, 325, 559 ; small-pox, measles, and diphtheria, sanitary regulations against, 81.
Scarlet fever, 86 ; patient, inoculation of muscular tissue with membrane from, 690.
Scavenging, 9, 161.
Schnell, John, appointed messenger, 78.
School vaccinations, 123.
Schools, Public, 58.
Schwieg, Geo. M., appointed Temporary Vaccinator, 79.
Sewerage, 60, 194, 214 ; and drainage, 227.
Sewer connections, house drainage, plumbing, etc., 8.
Shafts, ventilating, 201.
Shanties, 192, 215.
Share of zymotic causes in the total mortality in New York, 565.
Sheep and cattle, driving of, 43.
Sheppard, Henry, Assistant Sanitary Inspector, 77.
Sidewalks and streets, 228 ; street gutters and streets, 220.
Slaughter-houses, 194, 213 ; advantages of location, 781 ; alleged that the public health is not injuriously affected by, and the methods by which slaughtering and necessary accessories of that business are at present conducted, 771 ; and slaughtering, 166 ; and slaughtering, report on, 784, 786 ; co-operative, or abattoirs, sanitary advantage of, 775 ; objections to concentration or removal of, considered, 766 ; present condition of, 765 ; present location of, 764 ; removed above Fortieth street, Board of Health bound not to disturb, 768 ; time for removal or concentration of, must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss, 774.
Slaughtering, 43 ; and slaughter-houses, 166 ; and slaughter-houses, it is alleged that the public health is not injuriously affected by the methods and accessories of that business as at present conducted, 771 ; and slaughter-houses, report on, 784, 786 ; animals, report of the Sanitary Committee on the concentration and regulation of the business of, 764 ; business, alleged that, as at present conducted, is done in a most cleanly and approved manner, 769 ; business of, in this city, is so great in amount that it cannot be conducted in the abattoir, 772 ; concentration of, as proposed, will abate the nuisance of fat-melting, hide-curing, gut-cleaning, and other offensive kinds of business growing out of slaughtering, 780 ; large surface area now occupied by the business of, will be diminished to the least practicable space, 779 ; ordinance relating to, 783 ; right of this Board to remove the business of, 767 ; the entire territory occupied by, could be preserved in a much greater state of cleanliness than that of any one of the single establishments now in use, 779.
Slips, quill, directions for the use of, 149
Smalley, William A., clerk, 77.
Small-pox, 49, 82, 92, 122, 232, 306–325, 559 ; in public institutions, 146 ; notice, 148 ; scarlatina, measles, and diphtheria, sanitary regulations against, 81.
Smith, Stephen, appointed Honorary Consulting Hygienist to the Board, 79 ; Commissioner of Health, 1 ; report of, 764.
Smoky chimneys, report on, 789.
Sniffen, C., appointed to special analytical service, 78.
Sodic phosphate, aqueous solution of, hypodermic injection of salicylic acid dissolved in, 707 ; hypodermic injection of simple aqueous solution of, and of pure water as control experiments, 709.
Solution, alcoholic, hypodermic injection of, from residue of evaporated putrid liver-infusion, 706.
Solution, decomposed Cohn's, hypodermic injection of, 701, 703 ; hypodermic injection of, after filtration through many thicknesses of paper, 703 ; hypodermic injection of, after filtration through porous clay, 702 ; hypodermic injection of, after thorough aeration, 704 ; hypodermic injection of lower stratum of, 701 ; inoculation of, 700 ; inoculation of muscular tissue with sediment from bottle of, 700.
Sore throat, putrid, 565.
Special disinfection of premises, vacant lots, stagnant water, etc., 242.
Spinal meningitis, 306–325.
Spinsters and bachelors, 1874–1875, 604 ; and widowers, 1874–1875, 606.
Stable manure, 46, 159.
Stables, 193, 199, 220, 231.
Stagnant water, vacant lots, premises, etc., special disinfection of, 242.
Statistics, Vital, Bureau of, 70, 257 ; report of the Deputy Register for 1874, 1875, 582.
Steam railroads, 57.
Still-births, 265, 613.
Still-born infants, permits issued during the year 1875. for the interment of, and for the burial of the dead, 621.
Stimson, S. A., appointed temporarily to Vaccinating Corps, 80.
Stores and warehouses, factories and workshops, 219 ; liquor, wholesale and retail, 207.
Stoutenberg, Wm. A., appointed clerk, 79.
Street cars, 57, 179 ; cleaning, 11, 183.
Street gutters and streets, disinfection of, 237 ; disinfection of, 12 ; sidewalks and streets, 220.
Street pavements, 60 ; paving, 203 ; paving and streets, 207.
Streets, 187, 231 ; and sidewalks, 228 ; and street gutters, disinfection of, 237 ; and street paving, 207 ; nuisance created by cattle driving in, and the carriage of butchers' offal and refuse will forever be abated, 779 ; pavement of, general cleanliness, 230 ; street gutters, and sidewalks, 220.

Street sweepings, 12; ashes and garbage, disposal of, 12; disinfection of, and disinfection of the Harlem flats during the summer of 1875, 242.
Strong, Alex., appointed temporarily to Vaccinating Corps, 80; Temporary Vaccinator, 79; Assistant Sanitary Inspector, 77; report of, 231.
Suburban Gas-light Company, 178.
Suburban nuisances, 47.
Suicides, 579.
Suits for penalities, 5.
Sunken and vacant lots, 207; lots, tidal lands, drainage, 62.
Sunstroke, 54.
Superintendence, local, in tenement-houses, 192.
Superintendent, Assistant Sanitary, report, 784; Sanitary, 76, report of, 76.
Sweepings, street, 12.
System, nervous, diseases of, 573; urinary, diseases of, 574.

Tables:
  Abstract exhibiting the annual comparative mortality in five consecutive years, by classes of causes, and from twenty-two of the principal diseases, 338; consolidated, of deaths in the City of New York, from all causes during the twelve months ending December 31, 1875, 406: of deaths as certified as dependent upon nephria or Bright's disease of the kidneys, 525, for 1875, 528; of mortality from phthisis pulmonalis in the City of New York in 1875, 494; of registered facts concerning time from attack till death, and the complicating maladies in the fatal cases of diphtheria in 1874, 561, in 1875, 562; of the record of deaths by phthisis pulmonalis in the City of New York for the twelve months ending December 31, 1874, 482–487, for the twelve months ending December 31, 1875, 488–489; of the record of deaths by phthisis pulmonalis in the City of New York in 1875, 490–493; of the registry of births in the City of New York for the twelve months ending December 31, 1874, 584–585, for the twelve months ending December 31, 1875, 586–587; of the registry of marriages in the City of New York for the twelve months ending December 31, 1874, 599, for the twelve months ending December 31, 1875, 600; yearly, of births registered in the Bureau of Vital Statistics during the past nine years, 596.
  Abstracts of the mortality in first quarter of 1874 326; in second quarter of 1874, 326; in third quarter of 1874, 327; in fourth quarter of 1874, 327.
  Accidental deaths, 1874, 531–533; 1875, 534–536.
  Acid, salicylic, and Cohn's solution, 711; and urine, 712.
  Ages of persons, during the twelve months ending December 31, 1874: Married, 601, males and females in all conditions, 603, bachelors and spinsters, 604, bachelors and widows, 605, widowers and spinsters, 606, widowers and widows, 607; during the twelve months ending December 31, 1875: Married, 602, males and females, in all conditions, 603, bachelors and spinsters, 604, bachelors and widows, 605, widowers and spinsters, 606, widowers and widows, 607.
  Aid Society, Children's, Industrial Schools, etc., work and results of vaccination in, 129.
  Analyses of Croton Water, results of, given in grains to the U. S. gallon of 231 cubic inches, 642–644; in parts in 100,000, 645–647.
  Analysis of street dirt taken in New York City, 12, 184.
  Autumnal quarter, comparative mortality in five consecutive years, by classes of causes, and from twenty-two of the principal diseases in, 342.
  Average of results obtained from a weekly examination of the Croton water, during the past four years, 648; results of the weekly examinations of Croton water, 63.
  Barometric pressure, mean, and mean temperature, day by day, in the year 1874, course of mortality from predominant causes of death, 274–284; day by day in the year 1875, etc., 285–295.

Tables:
  Births, abstract of the registry of, in the City of New York, for the twelve months ending December 31, 1874, 584, 585, for the twelve months ending December 31, 1875, 586, 587; marriages, cases of deaths referred to the coroners, with the number of burial permits, etc., during the years 1874 and 1875, 625; received in the Bureau of Vital Statistics each month during the past ten years, 597; still, return of, showing the nativity of parents and period of utero-gestation for the past six years, 620; still, return of, showing the nativity of parents and the period of utero-gestation for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615; yearly abstract of, registered in the Bureau of Vital Statistics, during the past nine years, 596.
  Bodies in transitu, still-births, and city deaths, number of permits of burial issued for, during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts and searches of the records of births, marriages and deaths for the same period, 625.
  Born, still, children, nativity of parents of, in New York City, and reported to the Bureau of Vital Statistics, during the year 1875, 618, 619; infants, nativity of parents of, in New York City, during the year 1874, 616, 617.
  Bright's Disease, occupation of victims of, 527, 530; of the kidneys, or nephria, abstract of deaths, certified as dependent upon, 525, for 1875, 528; or nephria, nativity, age and sex of the decedents from, in 1875, 529; sex, age and nativity of the decedents from, 526.
  Bureau of Vital Statistics, births received in, each month during the past ten years, 597; nativity of parents of children born in New York City, and reported to, during the year 1875, 594, 595; nativity of parents of children, still-born, in New York City, and reported to, during the year 1875, 618, 619; nativity of persons whose marriages were registered in, during the past ten years, 612; of the Health Department, disposition of the dead of New York City, during the year 1874, as collected from the records of deaths, 621, 622; yearly abstract of births registered in the, during the past nine years, 596.
  Bureau, Sanitary, work performed in, for twenty months, May 1, 1874, to December 31, 1875, 67.
  Burial Permits, number of, issued for city deaths, still-births, and bodies in transitu, during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts and searches of the records of births, marriages and deaths for the same period, 625.
  Burials in each cemetery, percentage of, to total number of interments during the year 1875, 623.
  Canine rabies, cases of, by months and seasons, 734.
  Cases of canine rabies, by months and seasons, 734.
  Causes, all, exhibiting the distribution of population and the variation of death-rates from, and from zymotic diseases, in the different wards and districts, and their relations to the density of the population, census records of 1875, 554, 555; condensed summary of the records of death in New York, in the ten years from 1866–1875, by classes of, in the different age-periods with percentage of each, 576, 577; consolidated abstract of deaths in the City of New York during the twelve months ending December 31, 1875, 406; consolidated, deaths in New York City for the twelve months ending December 31, 1874, 346, 403, recapitulation, 404, 405; deaths in the City of New York from all, in quinquennial periods during the twelve and three-seventh weeks ending Saturday, March 28, 1874, 328, 329, during the thirteen weeks ending Saturday, June 27, 1874, 330, 331, during the thirteen weeks ending Saturday, September 26, 1874, 332, 333, during the thirteen and five-seventh weeks ending Thursday, December 31, 1874, 334, 335. during the year ending Thursday, December 31, 1874, 336, 337; from all, deaths in the City of New York during

Tables :

the twelve months ending December 31, 1875, 407–471, recapitulation, 472, 473.

Cellars, privies, and yards, disinfection of, during the summer of the year 1874, 240 ; during the summer of the year 1875, 241.

Cemetery, percentage of burials in each, to total number of interments during the year 1875, 623.

Certificates, imperfect, transcripts and searches of the records of births, marriages, and deaths, number of burial permits, etc., during the years 1874 and 1875, 625 ; of drainage of parts and parcels of land issued by the Sanitary Superintendent, from May 1, 1874, to December 31, 1875, etc., 180.

Children born in the year 1874, nativity of parents of, 592, 593 ; deaths of, under five years of age, each day, for the year ending December 31, 1874, and total mortality, 272, for the year ending December 31, 1875, and total mortality, 273 ; mortality, 107, 109, 110, 260, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 556, 576, 578 ; nativity of parents of, born in New York City and reported to the Bureau of Vital Statistics during the year 1875, 594, 595 ; number of, borne by each mother, as collected from the returns of births received in this bureau for the twelve months ending December 31, 1874, 588, 589, for the twelve months ending December 31, 1875, 590, 591 ; one year old and under, mortality of, in 1874, in the principal infants' hospitals and in the entire city, 474, 475, in 1875, 476,477 ; still-born, nativity of parents of, in New York City, and reported to the Bureau of Vital Statistics during the year 1875, 618, 619 ; under five years of age, mortality of, in New York, during the five years ending December 31, 1875, 260 ; under five years of age, per centum ratio which the deaths of, had to the total mortality at all ages, 556.

Children's Aid Society, industrial schools, etc., work and results of vaccination in, 129.

Cohn's solution and salicylic acid, 711.

Colored departments included in grammar departments of grammar schools, vaccination in, female classes, 131 ; male classes, 130

Colored public schools, work and results of vaccination in, 128.

Comparative mortality in five consecutive years, abstract exhibiting the annual, by classes of causes, and from twenty-two of the principal diseases, 338 ; in the winter quarter in five consecutive years, by classes of causes, and from twenty-two of the principal diseases, 339 ; of the spring quarter, 340 ; for the summer quarter, 341 ; of the autumnal quarter, 342.

Comparison of enumerated populations in 1865 and 1875, and the mortality in each year, by age periods, and classes, with the death-rates in them, 578.

Condemned, and seized by the Sanitary Company, meat, fish, etc., for the year 1874, 65 ; for the year 1875, 65.

Condensed summary of the records of death in New York, in the ten years from 1866–1875, by classes of causes in the different age periods, with percentage of each, 576, 577.

Consolidated abstract of deaths in the City of New York, from all causes, during the twelve months ending December 31, 1875, 406 ; causes of deaths in New York City for the twelve months ending December 31, 1874, 346-403, recapitulation, 404,405.

Coroners, number of cases of deaths, marriages and births referred to, with the number of burial permits, etc., during the years 1874 and 1875, 625.

Course of mortality from predominant causes of death, day by day, in the year 1874, with the daily record of mean temperature and mean barometric pressure, 274–284 ; day by day, in the year 1875, etc., 285–295.

Croton water, average of results obtained from a weekly examination of, during the past four years, 648 ; results given in parts in 100,000, 645, 647 ; results given in U. S gallon of 231 cubic inches, 642–644 ; the average results of the weekly examinations of, 63.

Tables :

Dates of organization of wards and the progress of population in them, in the City of New York from 1790 to 1875, 558.

Dead of New York City, disposition of, during the year 1874, as collected from the Records of Deaths of the Bureau of Vital Statistics of the Health Department, 621, 622.

Death, abstract of, registered facts concerning time from attack till, and the complicating maladies in the fatal cases of diphtheria in 1874, 561, in 1875, 562 ; in New York in the ten years from 1866–1875, condensed summary of the records of, by classes of causes in the different age periods, with percentage of each, 576, 577 ; rates, comparison of, in enumerated populations, in 1865 and 1875, and the mortality in each year, by age periods, and classes, 578 ; rate in the population at each age period, and number of deaths in each period of life, census of 1875, 270 ; rates, exhibiting the distribution of population and the variation of, from all causes and from zymotic diseases in the different wards and districts and their relations to the density of the population, census and records of 1875, 554, 555.

Deaths, abstract of, certified as dependent upon nephria or Bright's disease of the kidneys, 525, for 1875, 528 ; accidental, 1874, 531–533, 1875, 534–536 ; course of mortality from predominant causes of, day by day in the year 1874, with the daily record of mean temperature and mean barometric pressure, 274–284, day by day, in the year 1875, 285–295 ; by phthisis pulmonalis, abstract of the record of, in the City of New York for the twelve months ending December 31, 1874, 482–487, for the twelve months ending December 31, 1875, 488, 489 ; by phthisis pulmonalis, abstract of the record of, in the City of New York in 1875, 490–493 ; by small-pox in the City of New York from 1804 to 1876, 91 ; by suicide, in the year 1874, 541, in the year 1875, 547–551 ; city, still-births and bodies in transitu, number of burial permits issued for, during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts and searches of the records of births, marriages, and deaths for the same period, 625 ; consolidated causes of, in New York City for the twelve months ending December 31, 1874, 346, 403, recapitulation, 404, 405 ; due directly or remotely to intemperance for the year 1875, showing the diseases connected therewith, with nativity, age, etc., of each victim, 512–523 ; due directly or remotely to intemperance in the twelve months ending December 31, 1874, showing the diseases connected therewith, with nativity, age, etc., of each victim, 496–509 ; from zymotic diseases registered during the twelve months ending December 31, 1874, 306, 307, registered during the twelve months ending December 31, 1875, 308, 309, registered during the twelve weeks and three days ending Saturday, March 28, 1874, 310, 311, registered during the thirteen weeks ending Saturday, June 27, 1874, 312, 313, registered during the thirteen weeks ending Saturday, September 26, 1874, 314, 315, registered during the thirteen weeks and five days ending Saturday, December 31, 1874, 316, 317, registered during the twelve weeks and two days ending Saturday, March 27, 1875, 318, 319, registered during the thirteen weeks ending Saturday, June 26, 1875, 320, 321, registered during the thirteen weeks ending Saturday, September 25, 1875, 322, 323, registered during the thirteen weeks and six days ending Friday, December 31, 1875, 324, 325 ; from all causes, consolidated abstracts of, in the City of New York, during the twelve months ending December 31, 1875, 406 ; in the City of New York from all causes during the twelve months ending December 31, 1875, 407–471, recapitulation, 472, 473 ; in the City of New York from all causes in quinquennial periods during the twelve and three-seventh weeks ending Saturday, March 28, 1874, 328, 329, during the thirteen weeks ending Saturday, June 27, 1874, 330, 331, during the thirteen weeks ending Saturday, September 26, 1874, 332, 333, during the

Tables :
thirteen and five-seventh weeks ending Thursday, December 31, 1874, 334, 335, during the year ending Thursday, December 31, 1874, 336, 337 ; occurring each week by classes, first quarter ending March 28, 1874, 343, second quarter ending June 27, 1874, 343, third quarter ending September 26, 1874, 343, fourth quarter ending December 31, 1874, 344, first quarter ending March 27, 1875, 344 ; second quarter ending June 26, 1875, 345, third quarter ending September 25, 1875, 345, fourth quarter ending December 31, 1875, 345 : of children under five years of age, each day for the year ending December 31, 1874, and total mortality, 272, for the year ending December 31, 1875, and total mortality, 273 ; of children under five years of age, per centum ratio to the total mortality at all ages, 556 ; of persons in New York City during the year 1875, interments of, and of still-born infants, 624 ; of persons ninety years old and upward in New York, during the year 1874, 628 to 631, during the year 1875, 632–635 ; records of, of the Bureau of Vital Statistics of the Health Department, disposition of the dead of New York City during the year 1874, 621, 622 ; Riverside Hospital, 105, 107, 109, 110 ; showing the number of, in each period of life (census 1875) and the death-rate in the population at each age-period, 270.
Decedents, sex, age, and nativity of the, from Bright's disease, 526 ; sex, nativity, and age of, from nephria or Bright's disease in 1875, 529.
Diphtheria, abstract of registered facts concerning time from attack till death and the complicating maladies in the fatal cases of, in 1874, 561 ; in 1875, 562.
Dirt, street, analyses of, taken in New York City, 12, 184.
Disease, Bright's, occupation of victims of, 527, 530 ; or nephria, nativity, age, and sex of the decedents from, in 1875, 529 ; sex, age, and nativity of the decedents from, 526.
Disease of the kidneys, Bright's, or nephria, abstract of deaths certified as dependent upon, 525 ; for 1875, 528.
Diseases connected with deaths due directly or remotely to intemperance, for the year 1875, with nativity, age, etc., of each victim, 512–523 ; deaths connected with, directly or remotely due to intemperance, in the twelve months ending December 31, 1874, 496–509 ; principal, abstract exhibiting the annual comparative mortality in five consecutive years, by classes of causes, 338 ; principal, abstract exhibiting the annual comparative mortality in five consecutive years, in the winter quarter, by classes of causes, 339, of the spring quarter, 340, for the summer quarter, 341, of the autumnal quarter, 342 ; zymotic, and from all causes, exhibiting the distribution of population and the variation of death rates from, in the different wards, and districts, and their relations to the density of the population, census and records of 1875, 554, 555 ; zymotic, deaths from, registered during the twelve months ending December 31, 1874, 306, 307, registered during the twelve months ending December 31, 1875, 308, 309, registered during the twelve weeks and three days ending Saturday, March 28, 1874, 310, 311, registered during the thirteen weeks ending Saturday, June 27, 1874, 312, 313, registered during the thirteen weeks ending Saturday, September 26, 1874, 314, 315, registered during the thirteen weeks and five days ending Saturday, December 31, 1874, 316, 317, registered during the twelve weeks and two days ending Saturday, March 27, 1875, 318, 319, registered during the thirteen weeks ending Saturday, June 26, 1875, 320, 321, registered during the thirteen weeks ending Saturday, September 25, 1875, 322, 323, registered during the thirteen weeks and six days ending, Friday, December 31, 1875, 324, 325, zymotic, in hospitals, tenement-houses, and other dwellings, mortality by the principal, during the year 1874, in New York City, 478, 479, during the year 1875, 480, 481.
Disinfection of privies, yards and cellars, during the summer of the year 1874, 240, of the year 1875,

Tables :
241 ; street gutters, June 1 to September 30, 1874, 238, May 22 to August 4, 1875, 239.
Disinfection, special, during the summer of 1874, 242.
Disposition of the dead of New York City during the year 1874, as collected from the records of deaths of the Bureau of Vital Statistics of the Health Department, 621, 622.
Districts and wards, exhibiting the distribution of population and the variation of death rates from all causes and from zymotic diseases, and their relations to the density of the population, census records of 1875, 554, 555.
Drainage of parts and parcels of lands, certificates of, issued by the Sanitary Superintendent, from May 1, 1874, to December 31, 1875, etc., 180.
Draper, Daniel, observer of Central Park Observatory, meteorological observations for the twelve months ending December 31, 1874, condensed from daily observations of, 296–300; for the twelve months ending December 31, 1875, 301–305.
Dwellings, tenement-houses and hospitals, mortality by the principal zymotic diseases during the year 1874, in New York City, 478, 479 ; during the year 1875, 480, 481.
Examinations, weekly, of Croton water, the average results of, 63.
Exhibiting the distribution of population and the variation of death rates from all causes, and from zymotic diseases, in the different wards and districts, and their relations to the density of population, census records of 1875, 554, 555.
Fatal cases of diphtheria, abstract of registered facts concerning time from attack till death, and the complicating maladies in 1874, 561 ; in 1875, 562.
Female classes, grammar departments of grammar schools, vaccination in, 131 ; primary schools and primary departments of grammar schools, vaccination in, 133.
Fish, meat, etc., amount of, seized and condemned by the Sanitary Company for the year 1874, 65 ; for the year 1875, 65.
Grammar departments of grammar schools, vaccination in, female classes, 131 ; male classes, 130.
Grammar schools, grammar departments of, vaccination in, female classes, 131 ; male classes, 130.
Grammar schools, primary schools and primary departments of, vaccination in, female classes, 133 ; male classes, 132.
Gutters, street, disinfection of, June 1 to September 30, 1874, 238 ; May 22 to August 4, 1875, 239.
Hospital, Riverside, census 1875, 103 ; admissions, 104, 106, 108 ; deaths, 105, 107, 109 ; sudden deaths, 110.
Hospitals, infants', and in the entire city, mortality of children under one year of age, in the year 1875, 476, 477 ; principal infants', and in the entire city, mortality of children one year old and under, in 1874, 474, 475 ; tenement-houses and other dwellings, mortality by the principal zymotic diseases in, during the year 1874 in New York City, 478, 479, during the year 1875, 480, 481.
Imperfect certificates, transcripts, and searches of the records of births, marriages and deaths, number of burial permits, etc., during the years 1874 and 1875, 625.
Increase of population, 264.
Industrial, Children's Aid Society, schools, etc., work and results of vaccination in, 129.
Inebriates, occupation of, 510, 511, 524.
Infant mortality, 55, 56, 107, 109, 110, 260, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 556, 576, 578.
Infants' hospitals, and in the entire city, mortality of children under one year of age in the year 1875, 476, 477 ; principal, and in the entire city, mortality of children one year old and under in 1874, 474, 475.
Infants, interments of still-born, and of persons who died in New York City during the year 1875, 624.
Inspectors, vaccination, percentage of success for each month, 120, 121.
Intemperance, deaths due directly or remotely to, for the year 1875, showing the diseases connected

Tables :
therewith, with nativity, age, etc., of each victim, 512–523 ; in the twelve months ending December 31, 1874, showing the diseases connected therewith, with nativity, age, etc., of each victim, 496–509.
Interments of still-born infants and of persons who died in New York City during the year 1875, 624 ; percentage of burials in each cemetery to total number of, during the year 1875, 623.
Kidneys, Bright's disease of, or nephria, abstract of deaths certified as dependent upon, 525 ; for 1875, 528.
Lands, certificates of drainage parts and parcels of, issued by the Sanitary Superintendent, from May 1, 1874, to December 31, 1875, 180.
Male classes, grammar departments of grammar schools, vaccination in, 130 ; primary schools and primary departments of grammar schools, vaccination in, 132.
Marriages, abstract of the registry of, in the City of New York, for the twelve months ending December 31, 1874, 599, for the twelve months ending December 31, 1875, 600 ; births, cases of deaths referred to the coroners, with the number of burial permits, etc., during the years 1874 and 1875, 625 ; nationalities by countries, 1874, 608 ; registered in the Bureau of Vital Statistics, nativity of persons, during the past ten years, 612.
Married persons, nativity of, during the year 1875, 610, 611.
Meat, fish, etc., amount of, seized and condemned by the Sanitary Company for the year 1874, 65 ; for the year 1875, 65.
Meteorological observations, for the twelve months ending December 31, 1874, condensed from daily observations of Director Daniel Draper, Observer of Central Park Observatory, 296–300 ; for the twelve months ending December 31, 1875, 301–305.
Mortality, abstracts of the, in first quarter of 1874, 326 ; in second quarter of 1874, 326 ; in third quarter of 1874, 327 ; in fourth quarter of 1874, 327.
Mortality, an abstract exhibiting in five consecutive years the annual comparative, by classes of causes, and from twenty-two of the principal diseases, 338 ; by the principal zymotic diseases in hospitals, tenement-houses, and other dwellings, during the year 1874, in New York City, 478, 479, during the year 1875, 480, 481 ; comparative, in the winter quarter, in five consecutive years, by classes of causes, and from twenty-two of the principal diseases, 339, of the spring quarter, 340, for the summer quarter, 341, of the autumnal quarter, 342 ; course of, from predominant causes of death, day by day, in the year 1874, with the daily record of mean temperature and mean barometric pressure, 274–284, day by day, in the year 1875, 285–295 ; from phthisis pulmonalis, abstract of, in the City of New York in 1875, 494 ; in each year, by age-periods and classes, with the death rates in them, comparison of enumerated population in 1865 and 1875, 578 ; infant and children, 55, 56, 107, 109, 110, 260, 270, 272, 273, 274–295, 306–342, 346–484, 486, 490, 494, 495, 496, 498, 500, 502, 504, 506, 508, 526, 529, 556, 576, 578 ; of children, one year old and under, in 1874, in the principal infants' hospitals, and in the entire city, 474, 475 ; of children, under five years of age, in New York, during five years ending December 31, 1875, 260 ; of children, under one year of age, in the year 1875, in the infants' hospitals, and in the entire city, 476, 477 ; rate of, from phthisis pulmonalis, in every 1,000 of the population in age-periods, 569 ; rate of, from phthisis pulmonalis, in every 1,000 of the population, in the respective wards, 569 ; showing total, and the deaths of children under five years of age, each day, for the year ending December 31, 1874, 272, in the year ending December 31, 1875, 273 ; summary showing percentage of, from phthisis, at different periods of life in New York, in 1875, 495 ; total, at all ages, per centum ratio which the deaths of children under five years of age had to, 556.
Nationalities, marriages, by countries, 1874, 608.
Nativity of parents of children born in New York City, and reported to the Bureau of Vital Statistics, during the year 1874, 592, 593 ; parents of children born in the year 1875, 594, 595 ; parents of children still-born in New York City, and reported to the Bureau of Vital Statistics during the year 1874, 616, 617 ; parents of still-born infants, in New York City, during the year 1875, 618, 619 ; parents, return of still-births, and period of utero-gestation for the past six years, 620 ; parents, return of still-births and the period of utero-gestation, for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615 ; persons married during the year 1875, 610, 611 ; persons whose marriages were registered in the Bureau of Vital Statistics during the past ten years, 612 ; population, 627.
Nephria or Bright's disease, nativity, age, and sex of the decedents from, in 1875, 529 ; occupation of victims of, 527, 530 ; of the kidneys, abstract of deaths, certified as dependent upon, 525, for 1875, 528.
Ninety years old and upward, deaths of persons in New York during the year 1874, 628–631, during the year 1875, 632–635.
Number of burial permits issued for city deaths, still-births, and bodies in transitu during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts, and searches of the records of births, marriages, and deaths for the same period, 625 ; children born by each mother as collected from the returns of births received in this bureau for the twelve months ending December 31, 1874, 588, 589, for the twelve months ending December 31, 1875, 590, 591.
Observations, meteorological, for the twelve months ending December 31, 1874, condensed from daily observations of Director Daniel Draper, Observer of Central Park Observatory, 296–300 ; for the twelve months ending December 31, 1875, 301–305.
Occupation of inebriates, 510, 511, 524.
Operations, surgical, 1874, 537, 538 ; 1875, 539, 540.
Organization of wards, dates of, and the progress of population in them, in the City of New York, from 1790 to 1875, 558.
Parents of children, nativity of, born in New York City, and reported to the Bureau of Vital Statistics, during the year 1874, 592, 593 ; nativity of, born in the year 1875, 594, 595 ; still-born, nativity of, in New York City, and reported to the Bureau of Vital Statistics, during the year 1874, 616, 617 ; still-born infants, nativity of, in New York City, during the year 1875, 618, 619.
Parents, showing the nativity of, return of still-births, and period of utero-gestation for the past six years, 620 ; the nativity of, return of still-births, and the period of utero-gestation for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615.
Percentage of burials in each cemetery to total number of interments during the year 1875, 623 ; of mortality from phthisis, summary at different periods of life, in New York, in 1875, 495 ; of success of inspectors for each month, vaccination, 120, 121.
Per centum ratio which the deaths from children under five years of age had to the total mortality at all ages, 556.
Period of utero-gestation, return of still-births showing the nativity of parents, for the past six years, 620 ; return of still-births, showing the nativity of parents, for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615.
Permits of burial, number of, issued for city deaths, still-births, and bodies in transitu during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts, and searches of the records of births, marriages and deaths for the same period, 625.
Phthisis pulmonalis, abstract of mortality from, in the City of New York, in 1875, 494 ; abstract of the record of deaths by, in New York City, for the twelve months ending December 31, 1874, 482, 487, for the twelve months ending December

Tables :
31, 1875, 488–489 ; abstract of the record of deaths by, in the City of New York, in 1875, 490–493 ; rate of mortality from, in every 1,000 of the population, in age-periods, 569, in the respective wards, 569.
Phthisis, summary showing percentage of mortality from, at different periods of life, in New York in 1875, 495.
Population, exhibiting the distribution of, and the variation of death-rates from all causes, and from zymotic diseases in the different wards and districts, and their relations to the density of population, census and records of 1875, 554, 555 ; increase of, 264 ; progress of, in wards, dates of organization in the City of New York, from 1790 to 1875, 558.
Populations, comparison of enumerated, in 1865 and 1875, and the mortality in each year, by age-periods, and classes, with the death-rates in them, 578.
Primary departments of grammar schools, and primary schools, vaccination in, female classes, 133 ; male classes, 132.
Primary schools, and primary departments of grammar schools, vaccination in, female classes, 133 ; male classes, 132.
Privies, yards, and cellars, disinfection of, during the summer of the year 1874, 240 ; 1875, 241.
Public schools, colored, work and results of vaccination in, 128 ; work and results of vaccination, not including colored schools, 127, 128.
Pulmonalis, phthisis, abstract of mortality from, in the City of New York, in 1875, 494 ; abstract of the record of deaths by, in New York City, for the twelve months ending December 31, 1874, 482, 487, for the twelve months ending December 31, 1875, 488–489 ; abstract of the record of deaths by, in the City of New York, in 1875, 490–493 ; rate of mortality from, in every 1,000 of the population, in age-periods, 569, in the respective wards, 569.
Quinquennial periods, deaths in the City of New York from all causes, during the twelve and three-seventh weeks ending Saturday, March 28, 1874, 328, 329 ; during the thirteen weeks ending Saturday, June 27, 1874, 330, 331 ; during the thirteen weeks ending Saturday, September 26, 1874, 332, 333 ; during the thirteen and five-seventh weeks ending Thursday, December 31, 1874, 334, 335 ; during the year ending Thursday, December 31, 1874, 336, 337.
Rabies, canine, cases of, by months and seasons, 734.
Rate of mortality from phthisis pulmonalis, in every 1,000 of the population, in age-periods, 569 ; the respective wards, 569.
Recapitulation, deaths in the City of New York, from all causes, during the twelve months ending December 31, 1874, 404–405 ; during the twelve months ending December 31, 1875, 472 to 473.
Records of births, marriages, and deaths, transcripts and searches of, imperfect certificates, the number of burial permits, etc., during the years 1874 and 1875, 625 ; deaths, of the Bureau of Vital Statistics of the Health Department, disposition of the dead of New York City during the year 1874, as collected from, 621, 622.
Registered facts, abstract of, concerning time from attack till death, and the complicating maladies in the fatal cases of diphtheria, in 1874, 561, in 1875, 562 ; marriages, in the Bureau of Vital Statistics, nativity of persons, during the past ten years, 612.
Registry of births, abstract of, in the City of New York, for the twelve months ending December 31, 1874, 584, 585 ; for the twelve months ending December 31, 1875, 586, 587.
Registry of marriages, abstract of, in the City of New York, for the twelve months ending December 31, 1874, 599 ; for the twelve months ending December 31, 1875, 600.
Report of work performed in the Sanitary Bureau for twenty months, May 1, 1874, to December 31, 1875, 67.
Results of analyses of Croton water, given in grains to the U. S. gallon of 231 cubic inches, 642–644 ; in parts in 100,000, 645–647.
Return of still-births, showing the nativity of parents and period of utero-gestation for the past six years, 620 ; for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615.
Riverside Hospital, census 1875, 103 ; admissions, 104, 106, 108 ; deaths, 105, 107, 109 ; sudden deaths, 110.
Salicylic acid and Cohn's solution, 711 ; and urine, 712.
Sanitary Bureau, report of work performed in the, for twenty months, May 1, 1874, to December 31, 1875, 67.
Sanitary Company, amount of meat, fish, etc., seized and condemned by the, for the year 1874, 65 ; for the year 1875, 65.
Sanitary Superintendent, certificates of drainage of parts and parcels of land issued by the, from May 1, 1874, to December 31, 1875, 180.
Schools, grammar, grammar departments of, vaccination in, female classes, 131 ; male classes, 130.
Schools, grammar, primary departments of, and primary schools, vaccination in, female classes, 133 ; male classes, 132.
Schools, Industrial, Children's Aid Society, etc., work and results in, 129.
Schools, primary, and primary departments of grammar schools, vaccination in, female classes, 133 ; male classes, 132.
Schools, public, colored, work and results of vaccination in, 128.
Schools, public, work and results of vaccination in, not including colored schools, 127, 128.
Small-pox in the City of New York, deaths by, from 1804 to 1876, 91.
Solution, Cohn's, and salicylic acid, 711.
Special disinfection during the summer of 1874, 242.
Spring quarter, comparative mortality in five consecutive years by classes of causes and from twenty-two of the principal diseases in, 340.
Statistics, Bureau of Vital, births received in the, each month during the past ten years, 597 ; nativity of parents of children born in New York City and reported to, during the year 1875, 594, 595 ; nativity of parents of children still-born in New York City and reported to, during the year 1875, 618, 619 ; nativity of persons whose marriages were registered in, during the past ten years, 612 ; of the Health Department, disposition of the dead of New York City during the year 1874, as collected from the records of deaths, 621, 622 ; yearly abstract of births registered in the, during the past nine years, 596.
Still-births, city deaths, and bodies in transitu, number of burial permits issued for, during the years 1874 and 1875, with the number of births, marriages, cases of deaths referred to the coroners, the number of imperfect certificates, transcripts, and searches of the records of births, marriages, and deaths for the same period, 625 ; return of, showing the nativity of parents and period of utero-gestation for the past six years, 620 ; return of, showing the nativity of parents and the period of utero-gestation, for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615.
Still-born children, nativity of parents of, in New York City, and reported to the Bureau of Vital Statistics during the year 1875, 618, 619 ; infants, interment of, and of persons who died in New York City during the year 1875, 624 ; infants, nativity of parents of, in New York City during the year 1874, 616, 617.
Street dirt, analyses of, taken in New York City, 12, 184.
Street gutters, disinfection of, June 1 to September 30, 1874, 238 ; May 22 to August 4, 1875, 239.
Suicide, deaths by, in the year 1874, 541–546 ; in the year 1875, 547–551.
Summary, condensed, of the records of death in New York in the ten years from 1866–1875, by classes of causes in the different age-periods, with percentage of each, 576, 577 ; showing percentage of mortality from phthisis at different periods of life in New York in 1875, 495.

Tables :
  Summer quarter, comparative mortality in five consecutive years, by classes of causes, and from twenty-two of the principal diseases in, 341.
  Superintendent, Sanitary, certificates of drainage of parts and parcels of land issued by the, from May 1, 1874, to December 31, 1875, 180.
  Surgical operations, 1874, 537, 538 ; 1875, 539, 540.
  Temperature, mean, and mean barometric pressure with the daily record of, day by day, in the year 1874, course of mortality from predominant causes of death, 274-284 ; day by day, in the year 1875, 285-295.
  Tenement-houses, hospitals and other dwellings, mortality by the principal zymotic diseases in, during the year 1874, in New York City, 478, 479 ; during the year 1875, 480, 481.
  Transcripts, and searches of the records of births, marriages and deaths, imperfect certificates, the number of burial permits, etc., during the years 1874 and 1875, 625.
  Urine and salicylic acid, 712.
  Utero-gestation, period of, return of still-births showing the nativity of parents, for the past six years, 620 ; for the twelve months ending December 31, 1874, 614, for the twelve months ending December 31, 1875, 615.
  Vaccination in grammar departments of grammar schools, female classes, colored departments included, 131, male classes, 130 ; in primary schools and primary departments of grammar schools, female classes, 133, male classes, 132 ; inspectors, percentage of success of, for each month, 120, 121 ; work and results of, in colored public schools, 128 ; in Industrial, Children's Aid Society schools, etc., 129 ; in public schools, not including colored schools, 127, 128.
  Vital Statistics, Bureau of, births received in, each month during the past ten years, 597 ; nativity of parents of children born in New York City and reported to, during the year 1875, 594, 595 ; nativity of parents of children still-born in New York City and reported to, during the year 1875, 618, 619 ; nativity of persons whose marriages were registered in, during the past ten years, 612.
  Vital Statistics of the Health Department, Bureau of, disposition of the dead of New York City during the year 1874, as collected from the records of deaths, 621, 622 ; yearly abstract of births registered in, during the past nine years, 596.
  Wards and districts, exhibiting the distribution of population and the variation of death-rates from zymotic diseases, and from all causes, and their relations to the density of the population census records of 1875, 554, 555 ; dates of organization of, and the progress of population in them in the City of New York, from 1790 to 1875, 558.
  Water, Croton, average of results obtained from a weekly examination of, during the past four years, 648, results given in parts in 100,000, 645-648 ; results given in U. S. gallon of 231 cubic inches, 642-644 ; the average results of the weekly examinations of, 63.
  Weekly deaths, by classes—first quarter ending March 28, 1874, 343 ; second quarter ending June, 27, 1874, 343 ; third quarter ending, September 26, 1874, 343 ; fourth quarter ending December 31, 1874, 344 ; first quarter ending March 27, 1875, 344 ; second quarter ending June 26, 1875, 345 ; third quarter ending September 25, 1875, 345 ; fourth quarter ending December 31, 1875, 345.
  Weekly examinations of Croton water, the average results of, 63.
  Winter quarter, comparative mortality in five consecutive years, by classes of causes and from twenty-two of the principal diseases in, 339.
  Work and results of vaccination in colored public schools, 128 ; in industrial, Children's Aid Society schools, etc., 129 ; in public schools, not including colored schools, 127, 128.
  Work performed in the Sanitary Bureau for twenty months, May 1, 1874, to December 31, 1875, 67.
  Yards, privies, and cellars, disinfection of, during the summer of the year 1874, 240 ; during the summer of the year, 1875, 241.

Tables :
  Yearly abstract of births registered in the Bureau of Vital Statistics, during the past nine years, 596.
  Zymotic diseases, and from all causes, exhibiting the distribution of population and the variation of death-rates from, in the different wards and districts, and their relations to the density of the population, census and records of 1875, 554, 555 ; deaths from, registered during the twelve months ending December 31, 1874, 306, 307, registered during the twelve months ending December 31, 1875, 308, 309, registered during the twelve weeks and three days ending Saturday, March 28, 1874, 310, 311, registered during the thirteen weeks ending Saturday, June 27, 1874, 312, 313, registered during the thirteen weeks ending Saturday, September 26, 1874, 314, 315. registered during the thirteen weeks and five days ending Saturday, December 31, 1874, 316, 317, registered during the twelve weeks and two days ending Saturday, March 27, 1875, 318, 319, registered during the thirteen weeks ending Saturday, June 26, 1875, 320, 321, registered during the thirteen weeks ending Saturday, September 25, 1875, 322, 323, registered during the thirteen weeks and six days ending Friday, December 31, 1875, 324, 325 ; principal, in hospitals, tenement-houses, and other dwellings, during the year 1874, in New York City, 478, 479, during the year 1875, 480, 481.

Tallow and fat rendering, 164.
Taylor, J. B., appointed Inspector of Vaccination, 78 ; Inspector of Vaccination, 1.
Taylor, Robert, appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Tenement-houses, 6, 152, 186, 198, 200, 204, 206, 214, 219 ; local superintendence in, 192 ; report on the manufacture of cigars in, 649.
Throat, putrid sore, 565.
Tidal lands, drainage, sunken lots, 62.
Time allowed for removal or concentration of slaughter-houses must be sufficient to enable the proprietors to make the necessary changes without great pecuniary loss, 774.
Tissue, muscular, and cornea, inoculation of, with aqueous infusion of membrane, 676 ; aqueous infusion of pure membrane, 675 ; pure membrane, 675.
Tissue, muscular, inoculation of, with boiled aqueous infusion of diphtheritic membrane, 675 ; filtered aqueous infusion of diphtheritic membrane, 675 ; membrane from scarlet fever patient, 690 ; mixture of pure membrane and salicylic acid, 691, 693 ; mixture of tongue-scrapings and salicylic acid, 697 ; mixtures of putrefying tongue-scrapings and salicylic acid, 698 ; pure membrane, 674, 676, 677, 679, 682, 685, 690, 691, 692 ; pure tongue-scrapings, 694, 695 ; putrefying tongue-scrapings, 698 ; sediment from bottle of decomposed Cohn's solution, 700 ; solid salicylic acid, 707.
Tongue, healthy human, inoculation of scrapings from, 694.
Tongue-scrapings and salicylic acid, inoculation of muscular tissue with mixture of, 697 ; pure, inoculation of muscular tissue with, 694, 695 ; putrefying, and salicylic acid, inoculation of muscular tissue with mixtures of, 698 ; putrefying, inoculation of muscular tissue with, 698.
Trachea, reddened mucous membrane of, inoculation of cornea and conjunctiva with, 673.
Tracy, Roger S., report of, 199 ; report on smoky chimneys, 789 ; report on the manufacture of cigars in tenement-houses, 649 ; Sanitary Inspector, 76.
Trades, offensive, 47.
Treskatis, G., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78.
Tubes, capillary, directions for the use of virus in, 149.
Tucker, J. E., appointed Assistant Inspector to Vaccinating Corps, 78.
Typhoid fever, 52, 86, 306-325 ; diphtheria, etc., 209.
Typhus fever, 306-325, 579.

Unripe fruit, inspection of, 164.
Unwholesome meat, 64.
Urinary system, diseases of, 574.
Usher, Jr., Bloomfield, clerk, 77.
Utilizing blood and offal, 46.

Vacant, and sunken lots, 207 ; lots, 193 ; lots, premises, stagnant water, etc., special disinfection of, 242.
Vacation of cellars, 158.
Vaccinating Corps, 50.
Vaccination, 51, 58, 111, 199, 212 ; among the vagrants, 147 ; bad results following, 135 ; distribution of circulars and placards as a means of increasing, 147 ; general directions to be followed after, 114 ; notices, distribution of, 241 ; prejudices against, 142 ; protection afforded by, 138.
Vaccinations, school, 123.
Vaccinators, public, qualifications of, 144.
Vaccine crusts, directions for the use of, 149.
Vagrants, vaccination among, 147.
Vanderpoel, Dr. S. Oakley, Health Officer of the Port, 1.
Van Nort, George M., report of, 17.
Vaults, privy, 193, 201.
Ventilating shafts, 201.
Ventilation, 651 ; of privies and waste-pipes, 193 ; of waste-pipes, 194, 198 ; roof leakage, drainage, etc., etc., 195.
Vessels, inspection of, 48.
Viele, Augustus, Sanitary Inspector, 76 ; report of, 196.
Violent deaths, 575.
Virus, and salicylic acid, inoculations of, 709 ; difficulties encountered in collecting, 146 ; directions for the use of, in capillary tubes, 149 ; kind of used, 117 ; sales and gratuitous distribution of, 149 ; vaccine and salicylic acid, inoculations of, 709 ; vaccine, sales and gratuitous distribution of, 149.
Vital Statistics, bureau of, 70, 257 ; report of the Deputy Register for 1874–75, 582.

Waller, Elwyn, Assistant Sanitary Inspector, 77 ; report of, 184 ; report on Croton water 641.
Warehouses and stores, factories and workshops, 219.
Waste and drains, 204.
Waste-pipes, 207 ; and privies, ventilation of, 193 ; ventilation of, 194, 198.
Water-closets and privies, 207, 230 ; and privy vaults, 193.
Water, Croton, 63 ; report on, 641.
Water, pure, and simple aqueous solution of sodic phosphate, hypodermic injection of, as control experiments, 709 ; stagnant, special disinfection of premises, vacant lots, etc., 242.
Westchester Gas-light Company, 176.
White, J. B , appointed Assistant Sanitary Inspector, 79.
Wholesale and retail liquor stores, 207.
Whooping-cough, 306–325.
Widowers and spinsters, 1874, 1875, 606 ; and widows, 1874, 1875, 607.
Widows and bachelors, 1874, 1875, 605 ; and widowers, 1874, 1875, 607.
Williams, E. P., appointed temporarily to Vaccinating Corps, 80 ; appointed Temporary Vaccinator, 79.
Williams, H. R., appointed Assistant Inspector to Vaccinating Corps, 78.
Wilson, J. L., appointed Temporary Vaccinator, 80.
Workshops and factories, 204, 206, 231 ; factories, warehouses, and stores, 219.
Works, plumbago, 166.
Wyckoff, P. B., appointed Assistant Inspector to Vaccinating Corps, 78.
Wylie, W. G., appointed Assistant Sanitary Inspector to Vaccinating Corps, 78 ; Temporary Vaccinator, 79.

Yale, Belden, appointed messenger, 78.
Yards and areas, 228 ; and cellars, disinfection of, 9 ; coal, 232 ; privies and cellars, disinfection of, 239.
Yates, Thomas D., Disinfecting Corps, 77.
Year, the deaths each day in the, 271.

Zymotic causes, share of, in the total mortality in New York, 565.
Zymotic diseases, 48, 82, 188, 190, 191, 195, 199, 203, 209, 210, 212, 217, 221, 223, 226, 229, 232, 233, 234, 274–295, 306–327, 338–351, 404–411, 556 ; and diarrhœal, 565.

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